

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, DECEMBER 12, 1885.

ORIGINAL LECTURES.

INTRODUCTORY LECTURE ON TUMORS.

TUMORS—THEIR SUPPOSED ORIGIN—BICHAT'S GERMINAL LAYERS—COHNHEIM'S DEFINITION—DERMOID CYSTS—MONSTROSITIES—VIRCHOW'S CLASSIFICATION—INFLAMMATION—TRAUMATISM—HEREDITARY PREDISPOSITION.

Delivered at the College of Physicians and Surgeons, Chicago.

BY N. SENN, M.D. (MILWAUKEE, WISCONSIN),
Professor of Principles and Practice of Surgery and Clinical Surgery.

Reported by WILLIAM WHITFORD, M.D.

GENTLEMEN,—This morning we enter upon an obscure but exceedingly important field in surgical pathology, as I shall commence the subject of "Tumors." The origin of tumors has always furnished a fertile field for speculation and for the formulation of the most diverse hypotheses. By some pathologists they have been considered as one of the results of inflammation, while others referred them to a hyperplasia of mature tissue or to the presence of parasites; but recent investigations tend to show that they are invariably the result of superfluous deposits of immature or embryonic tissue. Upon this etiological hypothesis we shall base our remarks. In order to study the subject more intelligently, it is necessary for me to refer very briefly to the classification of embryonic tissue by Bichat, who recognizes three distinct germinal layers, which we will find constituting important landmarks in our study of the histology of tumors.

These layers are as follows: (1) the outer layer, or epiblast, which during the development of the embryo forms the cutaneous layer; (2) the middle layer, or mesoblast, from which various complicated histological elements are subsequently developed; and (3) the internal layer, or hypoblast, from which the mucous membrane and the glandular organs in communication with it are formed. Remember distinctly that the epiblastic tissue results in the formation of skin, the hypoblast forms the lining membrane of the alimentary canal and the glandular organs, while the mesoblast consists of a matrix from which are developed the more complicated histologi-

cal elements, resulting in the formation of distinct organs and systems of organs.

Leaving all vague theories as to the origin of tumors, we will start out with the definition of Luecke, who describes a tumor as "an increase of volume by the production of new tissue without a corresponding physiological function." This description, however, fails to define accurately the boundary-line between different pathological products, leaving a somewhat vague distinction between a tumor proper and a swelling.

Cohnheim, the author of the hypothesis of the embryonic origin of tumors, defines a tumor to be "a circumscribed, atypical production of tissue from a matrix of superabundant or erratic deposit of embryonic elements." Under all circumstances, then, a tumor, according to his definition, is the result of tissue-proliferation from an embryonal matrix, originating from the epiblast, mesoblast, or hypoblast; but fixing the location of a tumor and referring its origin invariably to a matrix of pre-existing, latent, embryonal tissue. In adopting Cohnheim's classification, it becomes necessary for us to study some of the proofs on which are based his views and theories concerning the origin of tumors.

In the first place, I will call your attention to the development of special organs—the skin and its appendages—during the period of puberty. We know that certain organs up to the time of puberty remain, to a certain extent, in a dormant condition, not keeping pace with the general growth of the body; but when the period of puberty arrives, the genital organs, the skin and its appendages, suddenly are stimulated by a physiological impetus which results in increased tissue-growth. In pathology, the proof of this assertion is based on the fact that during this period certain forms of tumors, the result of epiblastic proliferation, develop themselves. There is no fact better established in pathology than that during the period of puberty there is an increased tissue-growth from the pre-existing epiblastic matrix, which results in the formation of dermoid cysts in localities where, from errors in embryological development, erratic deposits have taken place.

I call your attention to these cysts occurring in localities where, during the

development of the embryo, there is a liability of a misplacement of the epiblastic layer by dislocation and constriction. These cysts are found, as a rule, in regions where the epiblastic layer is liable to undergo great changes by indentation or inversion. If you will imagine with me, for example, the complicated processes of embryological development about the eye and neck, it is easy to understand how, during the indentations of the epiblast at those points for the future location of organs, an excessive inversion might occur, so that the erratic epiblast should insinuate itself into the tissues, and, by subsequent contraction and strangulation at the surface, become isolated and thus constitute a matrix in the neighborhood of the eye or neck for the future development of a dermoid cyst. This matrix is congenital; the embryonic cells remain in a latent condition until, during an increased physiological development, the epiblastic layer manifests itself at the age of puberty, which stimulates the latent cells to increased tissue-growth at that point, which will result in the formation of new tissue, and in this instance it gives rise to the formation of a cyst which contains all the elements of the epiblastic layer as we find it represented in true skin,—that is, hair, epithelial cells, and the products of secretion of the sebaceous and sweat glands, which we find in normal skin; the abnormal, erratic, epiblastic deposit simply being a matrix of immature, latent skin-structure. The same results of errors of embryological development we find in deeper localities of the body, especially where there is a blending between the germinal layers during embryonal growth: thus, we observe them in the sacral region and in the genito-urinary organs. In these localities we look for the growth of dermoid cysts during the period of puberty. Another variety of dermoid tumors we find about the neck, the result of incomplete obliteration of the foetal remnant of the branchial tracts. These tumors, then, in the true sense of the word, are always congenital, inasmuch as the child is born with the matrix, which, during the increased physiological development of the epiblastic layer, results in the production of the histological elements of which the skin and its appendages are composed.

Another familiar example, substantiating the theory of the embryonal origin of

tumors, we find in the pregnant uterus. As a rule, hypertrophy of tissue is produced and attended by increased physiological function. In the gravid uterus there is an increase of muscular tissue attending simply an increased physiological growth of an organ unattended by muscular contraction. How can we explain this increase of muscular tissue? During pregnancy the muscular fibres remain inactive; the uterus is engorged by an increased afflux of blood. We can only explain the attending muscular hyperplasia by assuming the presence of a superabundant deposit of embryonal cells awaiting a favorable opportunity to develop themselves into mature muscular tissue. It is not an increased activity; it is simply an increased physiological production, the development of new muscular elements from embryonal deposits, the uterus preparing itself in that way for future increased action.

Another familiar instance can be mentioned in connection with certain monstrosities (superabundant organs), which can only be satisfactorily explained by assuming that, during the period of development, at certain points there is an increased production of embryonal tissue which keeps pace with the physiological development of the body. In children born with six fingers instead of five, it follows as a necessary consequence that the supernumerary member was the result of an abnormal additional production of embryonal tissue. Monstrosities, again, are peculiar from the fact that, instead of an increased production of embryonal tissue, we observe cases where there is a lack of tissue-development from a deficiency in the pre-existing embryonal deposition, which results in a corresponding defect or absence of certain organs. Another instance where this hypothesis is well demonstrated is furnished by the so-called giant-growth, both general and local. Giants nowadays are not frequently seen, and the question arises, What is the difference in the development between an ordinary man and a giant? Giants are always born giants, although at the time of birth the size of the child may not be in excess. We have in that child a superabundance of embryonal tissue-deposits, which enables the body to develop subsequently to an unusual extent. Children are sometimes born with inequality of symmet-

rical limbs: one limb is larger than the other at the time of birth, giant-growth taking place during intra-uterine life. Friedberg observed a case where, in a female child at the time of birth, the right leg was considerably larger than the left; after birth, symmetrical development failed to take place, and the larger limb assumed giant-growth, which induced Friedberg to assert that giant-growth is not only congenital, but progressive. If the embryonal deposits are there latent, slumbering, giant-growth may take place at any subsequent period during life, awaiting a favorable opportunity until an increased afflux of blood to the part results in increased tissue-proliferation; the difference in the growth in the two limbs being due to the amount of primary deposit of embryonal tissue.

A tumor is invariably an integral part of the organism: it is not a new formation. It consists in the growth and development of pre-existing tissue-elements. In cases of dermoid cysts in man we never find heterologous structures; we always look for the products of normal tissue-proliferation. We never expect to find anything in a dermoid cyst that is not found in the normal body. While we expect in such instances to find hair or the products of epithelial proliferation and degeneration, we never find feathers or any other heterologous tissues; while in birds, when dermoid cysts arise, we find no hair, but invariably feathers: so the products of a displaced epiblastic matrix always represent normal tissue-elements in an abnormal place.

The law which governs the blood-supply of a tumor is a subject which remains to be explained by future research. All that I can tell you is that the normal supply of blood to the tissues of the body is adequate for the development and growth of a tumor. The vascular supply takes place in the same manner as during the physiological production of new tissue, as we observe it during the growth of the body or the regeneration of tissues after injury or disease, and consists simply in a development of new, or increase in size of pre-existing, blood-vessels. The vascularization of the tumor is simply a development of blood-vessels adequate to the demand of increased tissue-proliferation. The nerve-supply of a tumor is a still more important subject, and one, I may say,

which is still wrapped in a great deal of obscurity. While we observe a development of increased tissue-growth independently of innervation from the cerebro-spinal axis (as in cases, for instance, of physiological development of the gravid uterus in animals where the spinal centre has been destroyed), it would appear that increased tissue-proliferation in a growth can and will result without an increased supply of nerve-elements. The study of the lymphatic system in tumors has not received the attention the importance of the subject merits. It still remains to be demonstrated by careful injections whether in certain kinds of tumors there is an increased or diminished development of the lymphatic system. The growth of a tumor depends primarily upon the amount of embryonal tissue deposited; and, secondarily, it is influenced and regulated by the amount of arterial blood supplied to the part, the tissue-growth being amenable to the same laws as govern the physiological growth and development of the body. If, by any means, either from the anatomical structure of the part, the blood-supply be scanty of the area in which the tumor grows, or local anæmia follow as the direct result of some pathological conditions, either by causing obstruction in the vessels or on account of the blood being diverted to a different part not in the immediate vicinity of the tumor, the growth of the tumor will be correspondingly slow. If, on the other hand, the tumor develop in a vascular tissue, or if the increase of arterial supply be favored by the development of additional pathological conditions in the immediate vicinity of the tumor, you would naturally expect increased tissue-growth in the tumor itself.

The retrograde changes in a tumor depend almost entirely upon its blood-supply. As long as the vascular supply can keep pace with the increased tissue-growth, just so long will the histological elements of which the tumor is composed multiply themselves. If there is an anæmia, pre-existing in the tumor or artificially induced by the production of pathological conditions which diminish the blood-supply, we may expect a retrograde transformation of the tissues *pari passu* with the diminution of the circulation. The retrograde changes most frequently observed are fatty degeneration, tyrosis, calcification, myxoid and colloid degeneration, the existing

tissue-elements undergoing a retrograde metamorphosis as the necessary result of diminished nutrition.

In differentiating between a swelling and a tumor, consider carefully the component parts of which the new formation is composed. If the swelling of an organ be the result of increased blood-supply, if it follow an acute or subacute inflammation, and be due to an increase in connective-tissue proliferation, we are dealing with a swelling, and not with a tumor from an embryonal matrix. If a tumor is never capable of performing a physiological function (in which all pathologists are agreed), an increase in the volume of an organ resulting from an increase of pre-existing normal histological elements, and attended by an increased secretion or function, is invariably a swelling and not a tumor. Again, if we have from any cause an obstruction to the exit of a physiological secretion, resulting in a distention of a pre-existing space, the swelling is a retention-cyst, and not a tumor. Such a cyst we call a retention-cyst in contradistinction to another variety of cysts, *cystoma*, as it simply consists in a distention of a pre-existing cavity by the accumulation of the normal physiological secretion of the part; while a tumor, on the other hand, invariably means a production of tissue-elements from pre-existing embryonal cells.

A hæmatoma, for instance, we would not call a tumor, although we find it so designated in many works on surgery, because a hæmatoma simply means an extravasation of blood into the tissues,—in other words, an accumulation of pre-existing, mature, morphological elements in the tissues. In like manner, a hydrocele is not a tumor, as the swelling results from exudation and accumulation in the serous sac of the tunica vaginalis, and is not a new formation from embryonal tissue. The term tumor, then, invariably implies an increase in volume by tissue-proliferation from an embryonal matrix.

We now come to the important subject of the

CLASSIFICATION OF TUMORS.

I will call your attention, in the first place, to the classification of Virchow, who arranged all tumors into three distinct classes, on a supposed anatomical and physiological basis. Under the name

of *histioid* he included all tumors which were supposed to consist of one histological tissue-element; the second class he denominated *organoid*, on the ground that the tumors belonging to this class were composed of organs from a combination of histological elements; thirdly, the name *teratoid* included all tumors which contained a more or less perfect system of organs. Let us see if this classification will stand the test of criticism. A *histioid* tumor composed of only one histological element, except in cases of very minute epithelial tumors or fibromata, is an impossibility. If we have an epithelioma developing upon a mucous or cutaneous surface, it is only a *histioid* tumor as long as the pathological product is limited to an abnormal production of epithelial cells, but as soon as the cells have passed beyond their physiological boundary-line there is a corresponding increase in all the tissues of the part. On the other hand, an *organoid* tumor, no matter how perfect it may be in its anatomical structure, is always devoid of any physiological function. Anatomically, it may be perfect; physiologically, the product is invariably sterile. A *teratoid* tumor presents at the best only a combination of imperfect systems, which are anatomically incomplete and physiologically of no importance.

Remaining true to our hypothesis that a tumor is invariably the result of pre-existing embryonal tissue-elements, we will adhere closely to the histological structure of the part in which tumors are found, and adopt the classification of Cohnheim, who under the head of the connective-tissue type of tumors includes the following: fibroma, lipoma, myxoma, chondroma, osteoma, glioma, lymphangioma, lymphoma, and sarcoma,—tumors which grow from a matrix of embryonal connective tissue. A tumor belonging to this class, whether benign or malignant, is invariably the product of tissue-proliferation,—not from pre-existing, mature connective tissue, as we find it when it results from inflammatory processes, but as the product of tissue-growth from a pre-existing embryonal matrix. The second class embraces all tumors which are derived from the epiblast or hypoblast, represented by papilloma, epithelioma, onychoma, struma, cystoma, adenoma, and carcinoma,—which arise from a superabundant or erratic deposit of embryonal tissue: in other words,

the epithelial type represents all tumors which originally developed from a pre-existing embryonal matrix derived from the epiblast or hypoblast. A third class includes the myomata, with the varieties myoma stricellulare and lævicellulare,—that is, tumors which contain striped or unstriped muscular fibres.

Passing to the nervous system, we find that it furnishes the soil for the fourth class of tumors, the myelinic neuroma, the neuro-fibroma, and the glioma,—glioma being the result of connective-tissue proliferation in the neuroglia of the nerve-centres and the retina. You will readily understand that these four classes, based strictly upon a histological basis, represent the first two divisions according to the classification of Virchow, while the fifth, and last, class includes all the remaining tumors, which have been designated teratoid tumors by Virchow. In this class of tumors we may find all the elements resulting from a proliferation of the epiblast, hypoblast, and mesoblast; in other words, compound tumors which contain hair and the products of glandular secretion, as skin and its appendages, in cases of dermoid cysts, while others contain more complicated structures, as bone, teeth, cartilage, muscle, brain-tissue, nerves, and occasionally portions of the intestinal canal with its glandular organs. You will recollect that we defined a tumor as "an atypical production of tissue," both in the malignant and benign forms. Now, by the term "atypical" I mean the existence of heterologous or erratic tissue-elements, the term first being introduced by Waldeyer for the purpose of drawing a line of distinction between malignant and benign growths, assuming that cancer was an atypical development of epithelial cells, the result of penetration of these tissue-elements into the subjacent connective tissue where they normally do not exist. We go one step further, and apply the term to all forms of tumors. You will readily understand why: because we have taken it for granted that a tumor does not develop from mature tissue, but that it is always the result of tissue-proliferation from pre-existing, latent, embryonal cells,—cells which take no part in the normal physiological function of the part, but cells deposited during embryonal life, remaining latent, simply awaiting a favorable opportunity to develop

themselves into a tumor. If a tumor, malignant or benign, grow from such a matrix, its cellular elements are always atypical. The difference between a papilloma and an epithelioma simply consists in the fact that in the former the epithelial cells occupy their normal, physiological, and legitimate position, and the tumor remains benign just so long as there is no relative change of position between the epithelial cells and the subjacent tissues. On the other hand, in carcinoma, epithelial cells are found where normally they do not exist. If, for example, in a gland of the skin there is an increased production of epithelial cells and there is no infiltration of the subjacent connective tissue, we may be satisfied that the tumor is not malignant.

There is, however, anatomically, such a thing as a non-malignant stage of cancer, in spite of its very name. In the early stage of epithelial tumors we find simply a superficial increase in the thickness of the epidermic layer,—that is the stage when the cancer still remains as a non-malignant growth; but just as soon as the physiological boundary-line between the epithelial layer and the subjacent tissues is destroyed, in other words, just as soon as epithelial elements are found in places where they have no legitimate existence, we have to deal with a cancer. The origin of tumors from erratic or superabundant deposits of embryonal tissue is the only explanation that pathology can offer why a cancer may develop in parts of the body where, normally, epithelial cells do not exist. Competent pathologists have claimed that cancer can develop only in parts normally supplied with a matrix of mature epithelial cells, while others assert that cancer has been found in parts where no epithelium can be found in a normal condition. How shall we explain this discrepancy? We offer a simple explanation in the fact that during the development of the foetus the epiblast or hypoblast may have become displaced somewhere by an error of development, and that these epithelial cells have remained dormant until certain conditions favorable to their development should have given rise to tissue-proliferation from this embryonal matrix and the formation of an epithelial tumor. In cases of benign growth our definition holds good, inasmuch as we can in no way explain, either

from an anatomical or physiological standpoint or by way of experiment, the development of pre-existing mature tissue-cells into a tumor. The most tangible and logical explanation for the growth and development of tumors is furnished by the hypothesis that the tissue-elements of a tumor, benign or malignant, are always produced from a matrix of embryonal tissue.

In considering the exciting causes, let us pass in rapid review the effect of inflammation. Formerly, pathologists supposed that inflammation might result in the formation of a tumor; we, on the other hand, deny *in toto* the possibility of such an occurrence independently of the presence of more essential conditions. Inflammation may act simply as one of the exciting causes. If we assume that at some point we have a deposit of embryonal tissue awaiting increased vascular supply, it will furnish the necessary blood-supply for tissue-growth to take place. It may, however, favor the development and growth of a tumor in another way by producing a reduction in the normal physiological resistance in the tissues, of which we shall have more to say hereafter in discussing the conditions which are necessary to establish malignancy.

Traumatism has generally been claimed to be, in the majority of cases, one of the principal elements in the causation of tumors. We shall simply consider it in the light of an exciting cause by inducing pathological conditions favorable to tumor-growth. The statistics of Dr. Boll, collected with a view to prove the traumatic origin of cancer, show that of a large number of cases only about twelve or fourteen per cent. were traceable to this cause. Traumatism is never the essential and only cause of tumor-growth: it acts as an exciting cause by inducing inflammation, which we have mentioned as a cause favorable to growth of abnormal tissue. Prolonged irritation—pathological, mechanical, chemical, and thermal—favors the development of a tumor when acting upon a part inhabited by a deposit of embryonal tissue; but when this essential factor is absent they may result in pathological changes of various kinds, but must always fail in producing a tumor. A true tumor is neither infectious nor contagious. No surgeon has ever infected himself in operating, and all transplantations of tumor-tissue in animals have so far proved fail-

ures. The transplanted tissue may grow for a few days or weeks, when tissue-growth is arrested and the product is invariably removed by absorption.

Gastric disturbances and mental anxiety are frequently mentioned as causes of cancer, but they simply favor tumor-growth by modifying the circulation. If our hypothesis prove correct, all influences which impair the general health of the patient are incapable of transplanting embryonal tissue into the body; consequently, they are only conditions which favor tissue-growth by modifying the circulation on the one hand, and by diminishing the physiological resistance of the tissues on the other, thus acting as exciting causes in stimulating the latent cells to active proliferation. Hereditary predisposition we recognize as the principal element of the causation of tumors by assuming that a child is invariably born not with a tumor necessarily, but with a matrix from which the tumor subsequently develops itself. It is a well-recognized fact that malignant as well as non-malignant growths can often be traced to a hereditary predisposition. This predisposition does not imply that the tumor itself is congenital. All that is required is to have a matrix which is congenital, and then, by future changes which favor the development of tissue-proliferation from that matrix, the tumor is developed. The term congenital in this connection means a storage of embryonal tissue at a point from whence subsequently the tumor springs,—that is to say, the embryonal tissue-elements have been in excess or have found their way to an abnormal place, and constitute the necessary germs from which the tumor develops subsequently. Physiological growth, traumatism, inflammation, and all conditions which modify the circulation or impair nutrition, simply act as exciting causes.

In considering the influences which determine the location of tumors, there is no exception to the rule that tumors are most frequently met with in localities where during embryonal life the most complicated cell-growth is observed. This assertion is well founded, by the fact that malignant tumors have their favorite locations at the junction of the skin with the mucous membrane,—a point in the embryo where we have a blending of tissue from the epiblast, the mesoblast, and the hypoblast. For this reason, and no other, epithelial

cancer is found most frequently where the mucous membrane blends with the skin.

Chondroma never results from proliferation of mature cartilage-cells; it is invariably the result of development of tissue from immature or erratic cartilage-cells. Virchow called attention to the fact that frequently chondroma of the femur has its origin in the interior of the bone from a deposit of cartilage-cells, remnants from embryonal life.

To illustrate the difference between tumors and inflammatory swellings, let us briefly consider the enlargements of the cervical glands as they present themselves to the surgeon. We may have an enlargement of the glands from adenitis, but in this instance the swelling is caused by an exudation of the morphological elements of the blood or proliferation of pre-existing mature connective tissue, consequently it cannot be called a tumor. If the swelling be the result of a specific infection, the inflammation will give rise to specific inflammatory products, as we observe it in cases of tuberculosis and syphilis, the results of inflammation produced by the deposition of specific germs in the gland-tissue; on the other hand, enlargements which result from proliferation, not of pre-existing mature elements, but of latent embryonal deposits, are true tumors, and in this particular locality they are represented by lymphoma, lymphangioma, and sarcoma.

ORIGINAL COMMUNICATIONS

NOTES OF FOUR CASES OF EYE-INJURIES.*

BY A. FRIEDENWALD, M.D.,

Professor of Diseases of the Eye and Ear, College of Physicians and Surgeons, Baltimore.

ALTHOUGH injuries to the eye are quite common in the experience of the specialist, the cases which I shall relate may prove not uninteresting to this Society, which is in the main composed of general practitioners.

Case I.—H. N., æt. 27 years, tinner, applied to me October 18, 1885, having been struck upon the eye with a piece of sharp tin while at work about a week before. He had suffered from pain almost uninterruptedly since the injury. His sight

was greatly impaired immediately after the mishap, and, according to his statement, he had not been able to see anything at all from the day after up to the time of coming under observation.

On examination I found that he had only perception of light. The conjunctiva was intensely hyperæmic, the pupil widely dilated, the anterior chamber extremely shallow; the lens was opaque and swollen, and it had pushed the iris forward, and induced a high degree of intraocular pressure.

Experience teaches that this cannot be tolerated with safety for any length of time. If permitted to continue, we must expect a disastrous form of inflammation to follow, and this, together with the continued increased tension, will not only deprive the organ permanently of the visual power, but probably also leave it in an unsightly condition, and possibly in a condition that may prove inimical to the sound eye.

October 18. Having ordered opiates and other palliative treatment temporarily, I proceeded to remove the injured lens, which is the only means by which we can hope to give relief in these cases. I made a downward corneal incision with a keratome, about three lines in length, just within the pupil. The narrowed anterior chamber made a more peripheral incision almost impossible. I next placed a Daviel's curette on the lower lip of the incision, and with very slight pressure readily evacuated the whole of the injured lens.

The patient experienced immediate relief from the operation, and, although the opiates were discontinued, the pain which he had so bitterly complained of did not return. There was not the slightest untoward symptom observed during the after-treatment, and the patient was discharged in ten days with as good sight as is possible without the lens.

Case II.—P. H., æt. 27 years, oyster-shucker, presented himself for treatment on September 13, 1885, having received an injury in his right eye, while at work, about three days before. I found an irregular abrasion occupying the centre of the upper and outer quadrant of the cornea, about two lines long in its longest and about a line and a half in its shortest diameter; conjunctival hyperæmia moderate, and pain of a subdued character. Ordered atropine, and applied iodoform once daily.

* Related at the meeting of the Baltimore Medical Association, November 10, 1885.

During the first few days the corneal wound presented very little change; after which time, however, a slight suppuration manifested itself, and in the course of about a week the corneal disease had assumed the character of a serpiginous ulcer. This form of ulceration, first described by Saemisch, has the peculiarity of showing no great tendency to extend very deep in the cornea, but must be dreaded for its superficial extension over a large part of its surface, while the parts primarily affected cicatrize and leave very marked opacities behind. The continued use of iodoform did good service in this case, and brought it to a comparatively favorable termination in about three weeks.

The chief point of interest to be noticed in this case, besides the good result attributable to the iodoform, is the peculiarity of the agent through which the injury was inflicted. Oyster-packing being a very extensive branch of industry in our city, we have many opportunities to observe how exceedingly damaging a stray piece of oyster-shell is apt to prove. The subsequent trouble to be expected from a corneal abrasion received in this way is almost invariably out of proportion to the primary lesion. Such an injury is almost certain to assume a suppurative form of inflammation, and to involve a considerable part of the cornea contiguous to the original seat of injury. From the course of such injuries we are warranted in believing that, in addition to the mechanical effect, there is a septic influence at work to which the principal damage must be attributed.

Another very interesting point in connection with the case presents itself on examining the sound eye. Here is seen an irregular pupil, drawn towards a cicatricial line located in the upper margin of the cornea. His sight is perfect with this eye. On referring to my note-book, (having recognized in his name a former patient), I found that he received an injury on December 25, 1868, when he was ten years old. The accident occurred immediately after the discharge of a pistol in the hands of a young companion. Having gone out against the wishes of his parents, he tried to conceal from them the injury that he had sustained, to avoid punishment for his disobedience. When he could no longer succeed in this, he endeavored to suppress his suffering in their

presence, in consequence of which medical aid was not sought till about three weeks from the date of the injury, when the long-continued pain had caused considerable constitutional disturbance. At this time I found a cicatrix at the upper and inner part of the cornea, and in the iris opposite I saw a shining foreign body which I took to be a piece of a percussion-cap.

On January 16, 1869, I made an incision in the sclero-corneal junction, and with an iris-forceps grasped the iris and the foreign body embedded in it, and, after withdrawing it, removed it with the scissors. All the troublesome symptoms disappeared from this time, and I had the satisfaction, after seventeen years, to find that the relief was permanent.

Case III.—Mr. H., aged 20, assistant to the Professor of Chemistry at the Baltimore City College. Was called by his medical attendant to see him on October 4, 1885, for an injury sustained in both eyes about four or five days before. The mishap arose from an explosion occurring in the manufacture of oxygen from potassium chlorate, mixed with what was at the time thought to be oxide of manganese, but which afterwards proved to have been powdered charcoal.

On examination, I found the right eye to have escaped serious damage. There was considerable conjunctival hyperæmia, but otherwise there was nothing to be found to cause alarm. He could not bear the light well; and the visual tests could not be very thorough; but I soon satisfied myself that the sight in this eye had not been injured.

The left eye presented a much more threatening aspect. At a point about a line and a half from the corneal margin in the inner part of the sclera, corresponding very nearly with the horizontal meridian, was seen a blackish mass about twice the size of a pin's head, which evidently had buried itself deeply in the tissues beneath. Only quantitative vision had been maintained. The pain of which the patient complained was referred specially to the eye, while pain about the brow and temple was only occasional, of short duration, and not excessive in character. The lens appeared intact, but there was a grayish reflex from the lower and outer portion of the vitreous. The ophthalmoscope failed to furnish any reflex from the

fundus oculi; the whole of the vitreous was cloudy. I had very little doubt that a part of the mass, a sample of which was still fixed in the scleral wound, had entered the vitreous. Palliative treatment was resorted to, and in the course of about a week all the active symptoms had disappeared. At this time a slight improvement in vision was observed. On holding the hands downward and inward, the fingers could be dimly seen. This slight improvement lasted but three or four days, when the condition relapsed to that previously described, in which state it has continued up to the present time.

The patient being entirely free of pain, and the eye presenting no abnormal appearance, casually examined (barring a small black spot seen where the lesion took place), had induced me to decide not to sacrifice the organ, although I fully recognized that it must be accepted as a rule that when a foreign body has entered the interior of the eye, not only is that eye doomed, but there is constant danger in store for the sound one. The peculiar character of the foreign body in this case, and the entire absence of symptoms, however, led me to hope that the injured eye will not endanger the sound one, and, as the patient can be kept under close observation, the attempt to preserve the injured eye seemed to me justifiable.

Case IV.—C. H., æt. 7 years, was struck in the left eye on June 1, 1885, with an oyster-shell. The examination revealed a cut through the cornea, about a line from its summit, extending into the sclera slightly to either side, presenting an appearance similar to that furnished by an incision made for cataract-extraction. At the inner end of the wound the iris had prolapsed. The anterior chamber was entirely filled with blood, and this prevented me from estimating to what degree the eye had really been injured, as the parts beneath were completely hidden by the accumulated blood. The pain at first was very great, but this soon yielded to the palliative treatment instituted. The treatment consisted of atropine, a protective bandage, and complete rest in bed. In about a week after the injury the anterior chamber was free from blood, notwithstanding which, however, sight had not returned, although the lens had been left intact. The wound had healed kindly, and the patient complained of no discomfort.

June 29. Prolapse very slight; ophthalmoscope gives no reflex from the fundus; no vision.

July 6. Begins to see; can count fingers at three or four feet.

July 8. Condition the same.

July 16. Can read letters of No. 8 Snellen at reading distance.

The vision constantly improved till September 22, when he read fine print readily. In the mean time, however, the inner end of the wound, where the iris had been incarcerated, had assumed a slight staphylomatous condition.

The chief interest in this case is the very good result obtained, not only in consideration of the extent of the lesion, but principally on account of the dangerous character of the weapon by which the injury was inflicted. In connection with our second case, I pointed out the danger which is to be dreaded from corneal wounds inflicted by oyster-shells. We are therefore warranted in regarding the termination in this case as an exceptionally favorable one, and are encouraged thereby not to give up all hope, even after very extensive lesions.

A CASE OF OPIUM-SMOKING.

BY J. B. MATTISON, M.D.

OPIUM-ADDICTION having its origin in a medical use of the pipe is rare. In a paper by the writer* it was asserted that cases due to a legitimate necessity, inasmuch as this therapeutical method is so limited, must be seldom or never met with. In an experience embracing the history of many habitués, no exception to this statement has been noted.

One case, however, under our care the past year, in which the form of addiction was smoking, though not caused by that, had some features that may make its recital of interest.

Mrs. A., æt. 23, married at an early age, and became the mother of two children. After the birth of the second, in 1879, she was given morphine by her medical attendant to secure sleep, and, unaware of its harmful nature, used it at irregular intervals for a year. It had then become a necessity, and was continued in daily doses of two one-eighth-grain pills at bedtime until April, 1883, when she

* "The Genesis of Opium-Addiction," *Detroit Lancet*, January, 1884.

began using the pipe at the suggestion of a friend, who commended it as preferable to the drug by the mouth.

At first, smoking was done only at bedtime, but, as usual, the demand for a more frequent supply becoming imperative, the intervals lessened until she would sometimes go without food, smoking and sleeping the twenty-four hours round.

At the time of coming under our care she was smoking only three times a day, using an unknown amount of opium, and at times increasing its effect, if occasion required, with the crude drug by the mouth.

Physical examination showed no impairment of renal, ovarian, or pulmonary functions, but the heart's action was feeble, frequent, irregular, and intermittent. Bowels torpid, appetite poor, skin pale, and memory much impaired. Albumen, sugar, and casts were absent; sp. gr. was 1018.

The pipe was at once discarded, and two grains of morphine per diem given by mouth. This proved more than enough, and was soon decreased to one grain daily; and then very gradual reductions made, averaging about one minim of Magendie daily, with generous diet and full doses of tincture of iron and nux vomica.

The new taking, with this roborant regimen, speedily brought a change for the better. Strength and appetite, notably the latter, markedly increased, and the patient's condition in every way much improved.

The opiate-quitting was attended with little reflex irritation, the most prominent being headache, not specially severe, forty-four hours after entire withdrawal. This was promptly removed by an injection of morphine, and did not return. Alvine relaxation was more marked than usual, the maximum movements in one day being ten, and then a daily decrease. No astringent was given. Vomiting occurred but once, and only one meal—evening of headache—was omitted. Patient was about each day.

The therapeutics of the case included tonics noted, daily faradic séances, morning cold shower-baths, occasional one-grain injections of cocaine to relieve fatigue or muscular aching, and fluid extract of cannabis indica to secure sleep.

The patient's need for a hypnotic ended on the tenth day. The approach of her periodical function was attended with severe pain, to relieve which hot sitz-baths, with fifteen to twenty minims of tincture of camphor, and one-sixtieth grain of atropia hypodermically, were used with success. Under this treatment she progressively improved, added nearly twenty pounds to her weight, and was dismissed recovered,—looking well, feeling well, and promising to do well.

Two or three points in this case may be briefly noted. While, in the author's

method,* reliance is largely placed on bromide of sodium as a controller of reflex disorder incident to the opiate-disusing, cases sometimes present in which it is not needed. Three such have been under our care the past year: one, a lady, of short addiction, and the daily taking small; another, a gentleman (commended to us by Roberts Bartholow), several years given to morphine subcutaneously, whose physical condition was so reduced that it was contra-indicated; and the present case, in which the peculiar form of addiction led us to think the reflex irritation following withdrawal would not, as the sequel proved, be very decided. All these patients recovered.

More than the ordinary degree of alvine disturbance attended this case. Whether this were due to the lack of preliminary sedation secured by our usual giving of the bromide, or dependent upon peculiarity of the patient, is uncertain. Probably the former had more to do with it, inasmuch as an equal relaxation with the bromide is rare.

As a rule, the periodical function in smokers is not suspended. The reverse obtains in most habitués other than of the pipe. In this case, after the opiate-quitting it was unusually active, and with pain. In our experience, special treatment seldom has been called for, but, when demanded, camphor in full doses and atropine hypodermically—the latter especially commended by Anstie in peri-uterine neuralgia—served us best. Cannabis indica, as usual, proved an efficient hypnotic. Forty minims of Squibb's extract was the maximum amount required.

Opium-smoking, as a vice, has made and is making progress in this country. Law may limit it, but not until public opinion has reached the point of regarding the use of opium in any form, save to avert or control disease, as always and only an evil,—subversive of health of both body and mind,—and that, as has been well observed by recent foreign authority, “there is no such thing as moderation for habitual or even occasional employment of opiates outside of medical practice,” but that the inevitable tendency is for the demand to grow by what it feeds on until it overmasters all self-effort at escape; not, we say, until laymen and doctors alike appreciate these

* “The Treatment of Opium-Addiction,” Putnam's Sons, New York.

truths, and by precept and practice enforce them, can we hope that this growing evil will decline.

Opium-smoking is not likely to take high rank as a therapeutic factor. It is too cumbersome for general use, and its medical range too limited. True, it has been so advised, Dr. Thudichum* commending it in colds, hay-fever, neuralgia, etc., and asserting no danger of addiction, only those having incurable disease being unable to resist that result.

As to its remedial value, there is no question that it is much inferior to other opiate methods, and this, with added objections, supports an editorial opinion of the foreign authority mentioned,† in which, referring to the suggestion that medical men avail themselves of the pipe as a therapeutic agent, it was asserted, "We feel sure we represent the bulk of medical opinion in repudiating that suggestion."

As to no risk of addiction from smoking, that is a mistake. No form of frequent opiate-taking is free from that hazard, and the pipe especially has for many a peculiar fascination that soon makes them powerless to resist.

On the other hand, as compared with morphine hypodermically, we believe its effects, if not used to excess, less disastrous and more easily overcome, and that if an opiate be imperatively required,—from incurably painful disease or confirmed addiction,—smoking, if meeting the demand, is often better than the syringe.

304 STATE STREET, BROOKLYN.

NOTE ON THE USES OF LOBELIA INFLATA.

BY V. M. REICHARD, M.D.

LOBELIA may be used internally as a nauseant, an expectorant, an emetic, and as an antispasmodic. As a nauseant, it should be given in small doses frequently repeated. If the stomach be decidedly acid it may be very distressing: so it is safer always to administer it with a little bicarbonate of sodium. In the first stage of acute bronchitis, combined with an opiate, as paregoric, it is unexcelled. It relieves the fulness and pain, and promotes a free flow from the bronchial mucous membrane. In children troubled with a

nocturnal cough and tightness of breathing, there is nothing better than tincture of lobelia in small doses. When given as an emetic, it is a good plan to give about ten drops in a wineglassful of warm water every fifteen minutes; or, with small children, give small doses and put them into a hot bath at the same time. The text-books say it is too depressing as an emetic, but I must say that, observing the precautions above mentioned, I have not found it so. In asthma, it will break up an attack at once if pushed to emesis. As an antispasmodic, especially in nervous exaltation, it is a remedy of great utility. An attack of hystero-epilepsy or of any hysterical manifestation will be cut short by it. If the patient cannot or will not swallow, it may be given by enema or hypodermically. After one or two trials of the drug, the patient will forego the hysterical attack rather than submit to the nausea. In this way I have relieved hysterical epilepsy, hysterical aphonia, and many more of the hysterical manifestations.

While it will not always cure the habit, it will relieve the symptom which so much disturbs the friends of the patient.

As a local application it has an extended use. Its value is undoubted, and, so far as I know, this is not mentioned in any of the standard text-books on materia medica. As a wash for indolent sores, as an application to traumatic erysipelas and to incised wounds, I have never found its equal. In the latter class of injuries it is especially useful. It acts as a hæmostatic and astringent. Its best application is to those wounds the edges of which can be brought together.

In any incised wound, no matter how large, or how great the hemorrhage, so long as it does not require a ligature, if the edges be brought together and held for a few minutes while a pledget of cotton wet with tincture of lobelia is applied, the hemorrhage will cease, the parts will adhere, and all will be prepared for union by the first intention. Though lobelia may not be a germicide, yet it will so entirely close up a wound as to render it perfectly aseptic. It is no longer a matter of experiment with me, but a fixed conviction, the result of observation of a great number of cases, varying from a mere scratch to severe incised wounds. In one case, a man while butchering, by a slip of the knife, cut a gash into the back of the hand

* Schmidt's Jahrbücher, 1884; New York Medical Record, September 30, 1884.

† British Medical Journal, October 17, 1885.

and the arm, beginning in the web of the thumb opposite the metacarpo-phalangeal articulation, running diagonally upward and towards the radius, extending in front about two inches above the wrist-joint. Where the knife entered the wound was quite deep, dividing the first and second extensors of the thumb. The radial artery was barely missed, and was seen pulsating in the bottom of the wound. The hemorrhage was so severe as to lead for a moment to the belief that the radial had been divided. The man positively refused to have the divided tendons sutured. The hand was put on such a splint as would support the thumb in its place, the edges of the wound approximated with adhesive strips, and the parts covered with absorbent cotton wet with a saturated tincture of lobelia. In three days union was apparently complete, but the perfection of the result was marred by the imprudence of the patient, who took off the splint and used the hand, with the result of destroying the union over the site of the divided tendons.

Any one who will try this remedy in the class of cases indicated cannot fail to be satisfied with the result.

The stigma cast upon lobelia by irregular practitioners claiming for it specific properties has caused it to be too little used by regular physicians. The remedy deserves more notice at our hands. While casting around for *new* remedies, it is proper to investigate fully the properties of those we already have. Though the active principle may be poisonous, there is not sufficient of it in a medicinal dose of the tincture to be dangerous. In a series of experiments made to determine the toxic character of this drug, I found it *impossible* to kill the animals experimented upon. Heroic doses were given to half-grown cats, with no other effect than intense nausea and weakness for a day or two. In no case would it kill, though as much as two ounces of a saturated tincture of the seed were given in the course of an hour.

FAIR PLAY, MARYLAND.

DR. WILLIAM B. ATKINSON has been appointed Special Inspector for the Delaware District of the State Board of Health of Pennsylvania.

TWO NEW INSTRUMENTS.

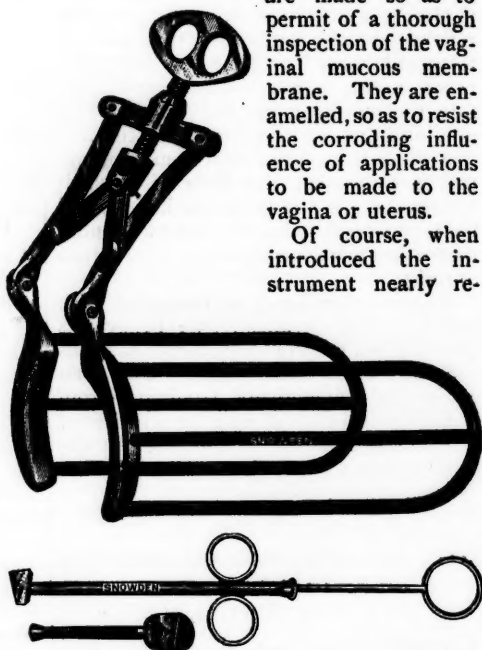
BY J. M. KEATING, M.D.,

Visiting Obstetrician to Philadelphia Hospital, and Lecturer on Diseases of Women and Children, etc.

I HAD recently made for me by Mr. Snowden, of this city, a form of vaginal speculum which I think has some points that will make it an available and valuable instrument to the general practitioner. As will be seen, it is a bivalve speculum, made so as to combine the greatest possible strength with the minimum weight. The instrument is adapted from Fränkel's nasal speculum. The blades

are made so as to permit of a thorough inspection of the vaginal mucous membrane. They are enamelled, so as to resist the corroding influence of applications to be made to the vagina or uterus.

Of course, when introduced the instrument nearly re-



sembles the ordinary bivalve speculum, the blades closely approximating. After sufficient dilatation has been accomplished to stretch the vagina thoroughly and bring the cervix in full view, the *mechanism* can be turned upward, on the hinge, upon the pubes or beneath the coccyx, and thus the vagina kept opened without the necessity of an assistant.

The second wood-cut represents an elastic intra-uterine pessary, which I think will prove useful in certain conditions.

It is formed of spiral wire, with an opening through its entire length. When in-

roduced into the uterine canal it will, of course, follow any curve that may exist, and will then straighten itself with gradual, persistent pressure, not sufficient to tear adhesions abruptly. In this way the condensed tissue in the crease of long-standing flexions will be made to expand gradually and the obstructed fluid-channels resume their functions; slight adhesions will be overcome.

There is another advantage which is possessed by this instrument,—that of being readily converted into a uterine repositor. By means of the attachment, which is easily made, a probe-pointed bar is passed by the thumb through the canal of the instrument, and in this way, if the instrument be in a flexed uterus, it can be straightened with just as much force as the operator chooses to use.

The tube with the bar and spring can then be detached, and the pessary allowed to remain in position; and if it is desired to convert it into a non-flexible one, a smaller bar of steel can be run through the canal of the instrument and permanently held by a screw-thread.

I have had these stems made with the button which rests upon the uterus of hard rubber, turned at the end in a flap or lip. The object of this is to catch the cotton tampon and hold it in place, and thus correct versions of the womb by this leverage. The stem can be kept at any angle to the vertical plane of the pelvis by the amount of cotton in the tampon which is caught and held by this arrangement.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

BACILLUS TUBERCULOSIS IN THE SPUTA OF AN INDIVIDUAL AFFECTED WITH GRINDER'S CONSUMPTION.

PROF. DA COSTA brought before his clinic, on the 14th ult., a man but little past middle life, who had been for many years constantly engaged as a grinder of tools, and had lived in an atmosphere full of fine particles of stone and steel.

The lecturer showed by a physical examination that the man was, without doubt, suffering with phthisis. There was no history of consumption in the family, as the father had lived to be ninety, the

mother seventy, and the health of both brothers and sisters was good. And the man himself had had excellent health up to eighteen months ago. At that time he usually weighed one hundred and sixty pounds. He first had some sore throat, with a slight cough. These gradually grew worse, and in four months he was obliged to quit work. He now weighs one hundred and nineteen pounds, and expectorates constantly a large quantity of muco-purulent sputa. He had been in the hospital only a short time, and had improved some under treatment. He had had but one hemorrhage, which came about two months ago.

His chest is somewhat prominent, with depression under both clavicles. There was marked dulness below the line of the left clavicle, both anteriorly and posteriorly, attended with coarse, moist râles, chiefly expiratory, and hoarse bronchovesicular breathing. There is also dulness on the right side, from the third rib down, but less marked than that on the left, and here, too, are râles of the same character as those in the left, but more numerous and extending lower down. Vocal resonance stronger in right than in left lung, and some approach to bronchophony. Temperature in the evening 100° F. Marked clubbing of the nails, and a sluggish capillary circulation.

Prof. Da Costa, having had the sputa examined under the microscope, had found the bacillus tuberculosis present in large numbers. He called attention to the peculiar interest of this case in its bearing upon the question of the specific character of the bacillus tuberculosis, which is now attracting so much attention, and pointed out the fact that in cases of this kind, where tubercular phthisis is clearly due to the particles of stone and steel inhaled, the bacillus tuberculosis, instead of being the producing cause, is probably an after-result. This case of grinder's consumption is of especial interest as it is among the few, if not the first, in which the presence of the bacillus tuberculosis has been clearly demonstrated.

The treatment recommended was cod-liver oil, one tablespoonful three times a day, with syrup of the iodide of iron, thirty minims. For the irritating cough which was present, codeine, gr. ss three or four times in twenty-four hours, was ordered.

FRACTURE OF THE PATELLA.

Dr. Morton brought before his clinic the second case of fractured patella which he had treated with the pin lately devised by him, and which has been recently described in the *Times*.

The first case treated is now about well, showing a good result considering the amount of contusion of the parts which attended the fracture. The last patient had worn the pin only about a week, it having been put in a few days after the accident, as soon as the swelling subsided.

The lecturer believed that union of the fragments would have progressed so far in a day or two that he would be able to remove the pin and simply support the parts with a bandage until the cure should be complete. The patient was looking quite comfortable, with a prospect of an excellent result, demonstrating the value of this new device for the treatment of fracture of the patella.

W. E. G.

TRANSLATIONS.

EPILEPSY DUE TO EAR-DISORDER.—Dr. Boucheron, in a contribution to the study of otitis, states that both in man and in animals epileptiform crises occur having their origin in some affection of the ear, or, to speak more exactly, in an excitation of the acoustic nerves.

These ear-epilepsies resemble the epilepsy, described by Brown-Séquard, which follows excitation of a sensory cutaneous nerve. In the human species, ear-epilepsy may manifest itself—

1. In infants during the evolution of the auricular affection which causes deaf-mutism. At this age the epileptiform crises are analogous to convulsive meningitic crises.

2. In childhood, during the course of various affections of the ear accompanied by deafness, slight or profound.

3. In adult life, where ear-epilepsy (always accompanied by an affection of the ear) forms one of the varieties of late epilepsy.

Ear-epilepsy is also often observed in dogs, cats, and other domestic animals.

Auricular or ear epilepsy is characterized—

1. By epileptiform convulsions presenting all the forms occurring in pure epilepsy, with or without falling, with or without *aura*.

2. By an affection of the ear (tubo-

tympanic catarrh), purulent catarrh of the tympanum, otorrhoea, impacted cerumen, lesions of the middle or internal ear, etc., with deafness more or less marked in either ear or in both ears. This is the distinctive sign of ear-epilepsy, by which it may be known from pure epilepsy.

In young children dumbness is often added to the deafness of which the epileptiform crises have been a symptom.

Ear-symptoms are often precursors of the convulsive seizures. Intelligence remains unaffected. In the cases observed by the author, the evolution of this form of epilepsy had been progressive towards cure, but with relapses corresponding with re-development of the ear-disease.

As regards their pathology, epileptiform convulsions of auricular origin have as an immediate cause an excitation, direct or reflex, of the auricular nerves,—either at their termination, along their course, at their bulbar origin, or perhaps in their inter-cerebral course,—in subjects predisposed and under certain conditions. In the same way that the epilepsy of Brown-Séquard has for its cause irritation of the trigeminal nerve, so the excitation of the sensory nerves of the ear, being transmitted to the medulla oblongata, calls into action the motor centres of this region and provokes the convulsive crises.

The source of irritation may be occlusion of the Eustachian tube, with consequent variation in the atmospheric pressure upon the membrana tympani; but a more frequent cause is impacted cerumen pressing upon the tympanic membrane. In dogs acari may be present and cause the local irritation (Nocard); but removal of the accumulation, of whatever kind, is followed by immediate cessation of the convulsions. When the source of irritation is an intracranial neoplasm, a meningitis, a necrosis of the mastoid, a hemorrhage into the labyrinth, or a suppuration or ossification of the labyrinth, auricular epilepsy may be recognized, but is not readily modified by treatment.

In conclusion, the ear may constitute, under certain circumstances, an epileptogenous zone, and the excitation of the auricular nerves may produce epileptiform crises in infancy, in childhood, and in adult life. These epilepsies of auricular origin exist also in the lower animals, such as dogs and cats.—*Revue de Thérapeutique Méd.-Chir.*, September 1.

A NEW HYPNOTIC.—Acétophènon (phényl méthyl acétone, having for its formula $C_6H_5COCH_3$), or hypnone (which is the name proposed by Dujardin-Beaumetz and Baudet), is a valuable hypnotic. According to investigations made by Papof and Neucki, this mixed acetone undergoes decomposition in the body, forming carbonic and benzoic acids, and is finally eliminated in the form of hippurates with the urine. From clinical investigations pursued by the former observers, it was found that in doses of from five to fifteen centigrammes, given with glycerin in gelatin capsules, it is well borne by the stomach, and causes a deep sleep, being thought for this purpose to be superior to chloral hydrate or paraldehyde. In doses of fifty centigrammes, when injected under the skin of guinea-pigs, it caused stupor, coma, and death in the course of five or six hours. When the remedy is continued for a number of days to patients, there is no evidence of intolerance, but the elimination of acetone by the lungs makes the breath offensive.

Hypnone is a liquid body, which, below 60° to 70° F., crystallizes in the form of white needles. It has a penetrating odor resembling both that of hydrocyanic acid and that of orange flowers. The peculiar odor makes its administration preferable in the form of gelatin capsule.

ICHTHYOL PLASTER FOR ECZEMA.—The *Gazette des Hôpitaux* contains an article recommending the following method of treating certain inflammations of the skin. The form of a medicated pellicle, a sort of artificial epidermis, is considered more convenient to both patient and physician. The dressing comes already spread, and in the form of a plaster which needs only to be moistened with warm water in order to make it firmly adhere; it can be removed in a similar way. On the second day the dressing should be removed, and a fresh piece substituted. In cases of acute eczema (moist variety), and in all the varieties of chronic eczema, notably the eczema of the lower extremities, where the pellicle was applied in strips so as partly to overlap one another (imbricated), this treatment, aided by compression, exerted a very favorable influence; also in lichen and in prurigo good results were observed from the beginning. In some cases of psoriasis apparently good results have been ob-

tained; but longer observation will be required to determine its real value in these cases.—*Le Progrès Médical*, No. 46.

SANTONIN IN AMENORRHŒA AND IN DYSMENORRHŒA. — Physiological researches have shown that santonin influences the vascular system, and that it acts upon the non-striated muscle like ergot of rye and ergotin, but, unlike these, the former does not exert any injurious effect upon the stomach. The expulsion of ascarides by santonin is due to the active peristaltic movements which it causes. J. Chéron (*Revue de Thérapeutique*) claims that the action of santonin upon the vascular system, and its effects upon the muscular fibres, make it especially efficient in the treatment of those forms of amenorrhœa and dysmenorrhœa which are dependent upon adynamia, anæmia, and chlorosis, especially when the menses are as yet imperfectly established. The physiological action of santonin tends directly to remove or reduce the passive chronic congestion which determines the amenorrhœa and dysmenorrhœa in adynamic cases; and it not only relieves the utero-ovarian congestion, but acts also as a tonic to the general system. It is recommended to administer it as follows:

R. Santonini, gr. xxx;
Glycerini, q. s.—M.

Ft. pilulæ no. 40.

S.—Take one or two pills before each meal.

TREATMENT OF CHOLERA BY VESICANTS. —Dr. Harkin, of Belfort, in a communication to the *Revue de Thérapeutique Médico-Chirurgicale*, No. 27, declares that the disorder of the nervous system is the efficient cause of the vomiting, diarrhœa, vertigo, tremor, and muscular cramps,—the symptoms of collapse being evidently caused by an extreme irritation of the great sympathetic, while the depression of the respiratory functions and those of the circulation, through the influence of the vaso-motor nerves, constitutes the great danger of the disease. He does not find it necessary to administer remedies internally, but immediately applies an epispastic solution behind the ears and along the course of the pneumogastric nerves on the neck. From the results already obtained by this treatment the author feels warranted in recommending it for further trial by physicians living in all lands.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DECEMBER 12, 1885.

EDITORIAL.

THE OLDEST KNOWN ANATOMICAL PREPARATION.

THE University of Basle possesses a treasure in a skeleton prepared by no other than the founder of anatomy, Andreas Vesalius, and, as it bears the date 1543, it may be justly regarded as the oldest known anatomical preparation.

The history of this remarkable relic has recently been investigated by Professor Roth, of Basle, to whom we are indebted for a pamphlet upon the relations of Vesalius with the old Swiss town.

It is usually stated that the great anatomist paid several visits to Basle; but Dr. Roth concludes, from a careful investigation of all authorities, that his only residence was in 1543, when he came from Padua for the specific purpose of seeing his great work "*De Humani Corporis Fabrica*" through the press of Jo. Oporinus. It does not seem probable that he undertook any teaching while there; but we can well believe that students and professors were interested in the brilliant young anatomist who had even taught his great master, Sylvius, and who, scorning the prejudices of his age, had dared to study systematically the human frame, no longer relying upon cats, dogs, and donkeys. Doubtless, too, rumors had got about in the town of the great work with which the printing-presses of Oporinus were groaning, and which was destined to shatter at a blow the fetters with which for twenty centuries the doctrines of Hippocrates and Galen had bound the profession. In the sixteenth century the dissection of the human body was most reluctantly allowed by the authorities, and

anatomists had to depend almost exclusively upon the lower animals for their material. Occasionally the body of a criminal was sent to the medical schools.

We can imagine the anxiety with which students and professors in Basle longed for such an opportunity to arise while Vesalius was with them. He was known to be as familiar with the parts of man as with those of a dog, and there were dark stories reported of his bold robberies of the gibbet and the graveyard. The opportunity came. On the 12th of May, Jacob Karrer was beheaded for a murderous assault upon his wife, and the body was handed over to the University to be dissected by Vesalius. As upon one occasion only, in 1531, had the dissection of a human body been allowed in Basle, we can picture the stir which such an event would create, more particularly as the demonstration was to be made by the renowned Italian professor. And, with the aid of the well-known representation, we can readily picture to ourselves the scene of the dissection, as it took place on the afternoon of the 12th of May, three centuries and a half ago. No anatomist since his time has better graced the lecture-theatre. Young and handsome, with a powerful, well-knit frame, and a strong, determined face, he was "a fluent speaker and master of an admirable style." On that day, and we may suppose for many days after, he taught to students and teachers a new anatomy, and when the dissection was completed he prepared the skeleton, and with his wonted generosity presented it to the University, where it remains to this day, in the words of the inscription, "*artis et industriæ suæ specimen.*"

No more precious gift could have been bestowed, and we find that, sixteen years later, Plater spoke of the reputation which the possession of this "anatomy" had given to his lectures. There were very few prepared skeletons in existence at the

time, and a curious instance of the estimation in which they were held is afforded by an incident in the life of Vesalius. When he went as court-physician to Madrid, Sylvius, his old master, who had relentlessly persecuted him, sent to the College of Physicians of that city and offered them a baby's skeleton if they would support him against the maligner of Galen.

The genuineness of the Basle skeleton is undoubted, as it is referred to by a succession of anatomists in the seventeenth and eighteenth centuries. Careful, indeed, should the University be of such a treasure, and proud the medical school in the possession of the only known relic of the greatest of human anatomists, the man whose daring and presumptuous spirit broke the thralldom of twenty centuries and taught men that the book of Nature was a truer guide than the books of men.

SOCIETY OF PHYSICIANS OF THE PENNSYLVANIA HOSPITAL.

ON the 17th instant will be inaugurated a new medical society, which deserves specially to be noticed. The Pennsylvania Hospital, organized in 1751, has, during the long period of its existence, not only cared for thousands of "sick and maimed and lunatics," but has also been of great service in the cause of medical education in this country. The clinical teachings given within its walls have guided medical practice in far-distant States and Territories, and, indeed, a very large proportion of the profession in the United States has walked its halls. At an early period of its existence it began its career as an educator by admitting young men, who were indentured to it for a term of years as their preceptor. Subsequent to this, as the Hospital grew and colleges sprang up, it abandoned the apprentice system and availed itself of the services of those who were already graduates in medicine, who served as resident-physi-

cians, obstetricians,* and surgeons. At the present time, besides the physicians and assistant-physicians in charge of the male and female departments of the insane, it has an attending staff of eight surgeons and physicians, and four residents in the hospital for the sick. As many of the ex-residents and attending physicians are yet living, it has been proposed to form a society composed of the past and present medical officers of the institution, and establish an annual reunion at the old Hospital. At this meeting, to be held next week, Dr. Morton will read the annual address,† giving some curious reminiscences of the early days of the institution, and he will also exhibit some important papers which he has recently found in the archives. Short informal addresses will be made by other old residents, and the rest of the evening will be devoted to social exercises. A very pleasant reunion is anticipated.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

I MUST commence by the correction of a misstatement in my last letter. When speaking of the new Pharmacopoeia, if my memory serves me aright, it was attributed to the Royal College of Physicians. This is incorrect. It is the product of the General Medical Council, a body for which no one has a good word. I dare say many of your readers do not know what this body is. It consists of representatives from the different bodies by which medical education is carried on, plus some nominees appointed by the Crown. It presides over registration; and each man, when he registers himself as a qualified practitioner, pays five pounds. Such payment is peculiarly objectionable just when a man wants every penny he can lay his hands on for other purposes, and consequently he particularly wants to see something for his money,—and what he does see is microscopically small. The Council exercises a loose supervision over medical education generally,

* The obstetrical department was closed in 1854, on account of the danger of septicæmia from the proximity of the surgical wards.

† Dr. Morton's address will appear in the next issue of the *Times*.

and looks after unworthy members of the profession when indiscreet. What the practitioner is anxious to see it do (as some practical return for the registration-fee) is to deal with the unqualified practitioner. He naturally asks, What is the good of being registered, if the unregistered are allowed to go on unchecked? It is like paying a gamekeeper and having to deal with the poacher yourself. This correction of mine is but justice to the former body, which has so little to plead for itself that the smallest injustice is a hardship for it.

We have a very extraordinary trial going on in our law courts at present which has a medical aspect. The editor of an evening daily paper wished to see a certain addition to the Criminal Acts carried through Parliament, which amendment would protect young girls against seduction by withdrawing their power of assent as regards their person until the age of sixteen is reached. Formerly a girl of twelve years could give consent, and some time ago the age was raised to thirteen. Now, juvenile depravity is so flagrant, and our streets are so crowded with child-harlots, that a number of earnest persons determined to tackle the unsavory subject. Before the close of the session society was partly amazed and partly horrified to find the business facts of brothel-keeping in all its disgusting details, especially as to the children caught for morbid lust, laid out at length in the plainest, unvarnished language. An enormous sale of the paper was the immediate result, and the prices paid for some copies were fabulous. No decent woman could pass along certain thoroughfares for the hoarse cries of jail-birds hawking this terrible literature. Thousands and thousands of copies were sold, and read by old and young alike. Children got hold of them, and became familiar with details of a most undesirable character for them,—or, indeed, for any one. It is not too much to say that a wave of psychical uncleanness has passed over the minds of the young of this generation which will leave its dirty drift on their minds for the rest of their lives; and whether the good which has resulted therefrom—viz., passing the Amendment to the Criminal Acts—will counterbalance the undoubted evil wrought remains to be seen.

One pathetic story was told of a child procured for seduction which gave a horrible shock to every reader. She was procured from her parents by fraudulent pretext, examined by a midwife, pronounced a virgin, and then left in a bedroom alone, where soon she found a strange man in the room. She screamed in terror, begging to be taken to her mother, but soon her screams were hushed. Here the relation stopped; but the preceding explanations left no shadow of doubt as to the rest.

The editor of the newspaper pledged his word for the absolute accuracy of every detail

in his long list of iniquities. A commission of notables, including the Archbishop of Canterbury, sat *in camera* on the said details, and pronounced in their favor. The story of the poor little girl was in every one's mouth, and a mother whose child had been taken away, as she understood, to domestic service on the date given (the eve of the Derby day), began to suspect that her daughter was the child-actor in this harrowing scene. She made a stir in the matter, went to a police court, and strove to recover her child. The Salvation Army—a curious medley of fanatics, idlers, and enthusiasts—had taken an active part in the inquiry, and it turned out that one of this gang, a converted harlot and brothel-keeper, had been utilized to procure a young girl under the pretence that she needed a little girl to help her in her house-work. Further, it appeared that the child was taken away to France after the alleged outrage, and when the mother applied to one of the leaders of the Salvation Army to recover her daughter she was refused.

At last the child was restored to her mother, and with this commenced a new phase and aspect of the business. Many people felt that no motive, however excellent, could justify the abduction of a child from her home on false pretences, the subjection of her to an indecent assault, and the administration of a noxious drug (chloroform) against her will. So the public prosecutor came upon the scene and indicted the whole lot concerned,—the gentleman who planned the investigation, and who called himself "the chief director," the converted courtesan and procuress who got hold of the child, the midwife who assaulted her, and the Salvation Army gentleman who took possession of the child. They were a motley lot, and the court was crammed to hear the case, and every scrap of information as to what went on was snapped up by the newspapers and spread broadcast over the land.

A change of front was now executed, and the defence made was that the action taken was to rescue the child from a life of infamy. After taking all care to secure an untainted child, and putting forward as their original object the demonstration of how easy it was to procure a pure child for an infamous purpose, this change was rather a surprise to most persons. The defendants attacked the character of the child's mother, who, it appears, got drunk the night her daughter left her, after having been struck by her husband for letting her go. But the mother stood her own gamely, admitting her faults, but declaring her inability to see why the abduction of her child was to be justified on that account. The father's character came out unblemished. A great deal of the life of doubtful characters in a humble condition of life was laid bare in cross-examination, which gratified the prurient curiosity of many persons without any equiv-

alent good being done. To blacken the characters of the relations and friends of the child did little to vindicate the abduction; and the plea of motive, urged vehemently, did not find favor in the eyes of the legal luminaries engaged in the trial. The chief director preferred to defend himself, and of course committed much irregularity, for which the presiding judge had to check him. The procuress swore she bought the child with money down from her mother, with the latter's full cognizance of what she really was wanted for; which was quite a new turn of affairs, and in conflict with what had been sworn at first, and not at that time contradicted. Then she admitted that she had sworn lies about her past life, for which she will probably have to stand her trial for perjury when the present case is over.

The trial has created the greatest excitement, and familiarized the public mind with every minutia in connection with deforation and the life of those who live by pandering to libidinous appetites. Betwixt the first examination before the police magistrate and the trial itself, the chief director made a tour in the North of England, where he was enthusiastically received by those fanatics who disbelieve in the Vaccination Acts, who oppose, tooth and nail, the Contagious Diseases Act (Human), and who have a certain class-hatred of the patrician personages for whose perverted lust the daughters of the poor were procured by hook or crook. Here he found supporters and willing subscribers to the defence-fund. He had done a good work in exposing the social monstrosity, and "the end excused the means," they loudly asserted. During this interval such of those individuals exposed in the investigation as could leave England got away. The Minotaur has fled over sea. The two young ladies who constituted themselves a firm of procuresses "have left their country for their country's good." And it is asserted that there are a good many persons very anxious to get away before the arrival of the day of wrath. In the event of the defendants coming to grief, there is no doubt that in revenge the persons who have figured in the original investigation will be exposed. It is a case of the farther in the deeper; and we may expect some most startling disclosures to follow the conviction of the defendants.

One disclosure has been already made which has not redounded to the credit of the medical profession. For some reason or other which forensic skill has not satisfactorily cleared up, after being examined by the midwife the child was again examined by a physician,—not a poor, broken-down devil who is reduced to any makeshift to rub along, but a genuine Harley Street swell, who is closely linked with the Salvation Army,—who did not decline to accept three guineas as his fee for the examination under

chloroform. This revelation decidedly gave a shock to the profession of a distinctly galvanic character, but so far no steps have been taken either to justify and defend him or to take him to task by the College of Physicians or by the leading journals. He may be congratulated on the fact that he does not stand in the dock with the defendants; for to examine a child under chloroform is surely a legal offence, in the absence of consent given by its parents and natural guardians. And there the thing stands: every one besmirched who is connected with the inquiry. One cannot touch pitch without being defiled. And how the investigation will branch out in different directions, as further legal action is taken, it is impossible to say. But the whole thing will probably be laid bare, and a huge social cancer demonstrated to exist in our midst. One seems to stand on the brink of a horrible disclosure, of which this disgusting trial is but the opening scene. Of course those persons in good social position who see disgrace and ruin staring them in the face are moving heaven and earth to close inquiry. Equally the supporters of the defendants (who regard them as martyrs) are girding up their loins for the fray. Class-jealousies are fanning the passions on both sides, and the battle will be fought out to the bitter end. No one palliates the lust which brought the whole thing about; but, then, were its magnitude and extent such as to justify these terrible disclosures, this national pollution? To steep the entire community in impurity in order to expose a certain number of persons who are a disgrace to a civilized country, is with many persons a step of doubtful desirability. However that may be, the first scene will soon close; and as to the future, we must take it when it comes.

In another recent trial a question of medical jurisprudence cropped up in the form of "disputed identity." A young lady at Brighton, a Miss Dash, was walking out with her mother, when a stranger introduced himself to her, explaining that he had met her at a ball, and giving his name as Captain Macdonald. This was a rather unusual commencement of a courtship, which, however, rapidly ripened just the same, and in a remarkably short time (to be measured by hours rather than days) the pair were married. After an equally brief honeymoon, Captain Macdonald took his final departure, leaving his recent bride disconsolate. At last her search for her errant lord resulted in the discovery that the man who took her to the altar was a married man, connected with the meat-market. She at once identified him as her husband. Troops of her friends swore positively to him, while, on the other hand, troops of his friends were equally positive that it was impossible that the said John Malcolm could have played the part of Captain Macdonald. The trial ended in the jury being unable to agree as to their

verdict, and the case had to be tried over again. In the mean time, all the facts were carefully gone over, and several who had been strong supporters of John Malcolm's innocence fell away from him, and at the second trial the gay Lothario was convicted and sentenced to penal servitude for committing bigamy.

One incident of immense real value was described, of which, however, forensic skill did not avail itself. Repeated action becomes automatic and independent of the will, and this fact has been made use of by writers of fiction. Fenimore Cooper utilizes it in "The Pirate." When "long Tom Coffin" and his marine comrade were being examined by a British officer, the latter suddenly uttered a common military command in a loud voice. Instinctively by the force of habit the marine obeyed the word of command, and so betrayed himself, while the sailor remained still and unmoved: there was no force of habit leading to unconscious betrayal operating in his case. Now, such unconscious betrayal was manifested by John Malcolm when identified by Miss Emma Dash as Captain Macdonald. When in the presence of witnesses Miss Dash saw before her the man whom she believed to be her lawful husband, and also then knowing that he was the husband of another woman, she was emotionally perturbed, as was quite natural under the peculiar circumstances of the case. What does the whilom husband do? He does not regard the lady as a stranger bringing a grave charge against him, and coolly regard her emotion unmoved himself, as he certainly would have done had she been really unknown to him. He went up to her and put his arm around her to soothe and console her. No man would do this to a perfect stranger, and in the presence of others, too. The act at once betrayed previous familiarity, to my mind. The man who puts his arm around a woman under these circumstances is no stranger, but some one who has been on terms of great familiarity some time in the past. If John Malcolm had, as Captain Macdonald, married Emma Dash, and been as a husband unto her, then his action becomes intelligible enough: it was but the repetition of an act frequently repeated in the past. Such act of unconscious betrayal has a high psychological interest attaching to it, and a value of its own,—albeit it did escape the acumen of the British bar.

J. MILNER FOTHERGILL.

BALTIMORE.

BALTIMORE, November 20, 1885.

ANOTHER murderer has just been acquitted in this State, in whose trial the plea of "emotional insanity" was successfully made. A man named Hance, living in the southern part of Maryland, was married in this city a year or two ago to a woman who

had been an inmate of a house of ill-fame. The married life of the couple does not seem to have been a very happy one, and after a time the woman returned to her former mode of life. Hance, on his visits to the city, would visit the woman at her new abode. The testimony proved that frequent quarrels took place between the two at these visits, and one day, after one of these disagreements, Hance shot his wife through the head.

At the trial, which took place in Annapolis, Senator Voorhees was one of the counsel for the defence. The killing was admitted, but, from the testimony of the neighbors and kinsmen of the accused, a case of emotional insanity was made out by the learned counsel. It is questionable, however, whether this would have had any weight with the jury had not the eloquent arguments of the attorneys and the family influence of the accused (which is very great) profoundly impressed the twelve good men and true. At all events, the prisoner was acquitted, "amidst tremendous applause," as the papers stated. It is significant, however, that the finding was simply "not guilty,"—in other words, an absolute acquittal,—and no reference was made in the verdict to insanity. This specious plea was simply introduced as a cover to secure an acquittal without making the whole trial a travesty of justice. There was no evidence whatever that the accused had, either before or after the murder, given any indication of mental disease, except the fact of his having married a prostitute whose charms had fascinated him. It is a satisfaction to know, however, that the verdict of the jury cannot be quoted as a precedent in future cases of this sort, since it completely ignored not only the facts presented by the commonwealth, but also the plea of the defence.

The new hospital for the Marine Hospital Service is nearing completion, and will be ready for use during next year. The wards are one-story pavilions. There are separate buildings for the administration, kitchen, surgeon's residence, etc. The hospital is beautifully located about half a mile north of the city, and commands a fine view of Druid Hill Park.

G. H. R.

PROCEEDINGS OF SOCIETIES.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, NOVEMBER 5, 1885.

The President, B. F. BAER, M.D., in the chair.

(Continued from page 178.)

OÖPHORECTOMY FOR OVARALGIA.

DR. WILLIAM GOODELL exhibited the ovaries from two cases of oöphorectomy, with the following histories.

When the patient, an unmarried woman,

aged 30, first consulted him, she weighed two hundred and thirty-six pounds; but at the same time she was very weak and could barely walk. She suffered excessive pain at her catamenial periods, which appeared only at long intervals. She had cataleptic and hystero-epileptic fits, and complained of very constant and acute ovarian pains. Her urine was passed but once a day, and this act was attended with much suffering. The womb was enlarged and the ovaries were very tender indeed; but nothing else abnormal was discovered. Asafetida and the bromides were prescribed in large doses, and she was advised to try the rest treatment. Fourteen months later she was again brought by her physician to consult Dr. Goodell. She now weighed only one hundred and twenty pounds, having lost one hundred and sixteen pounds, and she was in every respect worse, her ovarian pains being now constant and very acute, requiring large doses of morphine to control them. Her catamenia had not appeared for nine four months, and tonics seemed to have no effect whatever on her. Her physician was compelled to be in constant attendance on her, and was liable to be summoned at any hour of the day or night to give her a hypodermic injection. Masturbation was suspected, but she always denied practising this habit.

Nothing further could be done than the operation of oöphorectomy, which was accordingly performed a few days later at the hospital of the University. The ovaries were found much enlarged from cystic and interstitial degeneration, but there were no evidences of peritonitis or of cellulitis, which had been suspected. A corpus luteum existed in one ovary, a rectal hemorrhage or vicarious menstruation having taken place a few days before the operation. Her ovarian pains at once left her. She needed but very few doses of opium, which were given by rectal suppositories. Her convalescence was prompt, and she returned home in less than four weeks, free from all pain and in a fair way to get perfectly well. The case was a typical one of the advantages of oöphorectomy; yet he (Dr. G.) thought that the operation is now performed altogether too frequently.

OÖPHORECTOMY FOR BLEEDING FIBROID OF THE WOMB.

In this case the lady was 37 years of age, and had been married eleven years. She gave birth to a child about seven years ago, and since then had had one premature birth at seven months and one miscarriage. She first noticed an abdominal tumor nine years ago, but her catamenia began to be free some time before this. Late in the year 1881 the catamenia began to be excessive. As nothing served to check them, early in the following year Dr. Goodell was consulted.

He found multiple fibroids of the womb. Six tumors could be readily made out, of which two seemed pedunculated. The sound gave a measurement of four and a half inches. Under ergot and ammonium chloride the patient improved for several months; then the menorrhagia became worse, and finally a dribbling of blood kept up between the periods. In May of the present year she again consulted Dr. Goodell. She had been dribbling continuously from January, and was much reduced in strength. Being a brunette, she exhibited the facies uterina in a most marked degree, the pigmentation being very dark and extensive. The womb now measured seven and a half inches.

She was admitted into Dr. Goodell's private hospital, and on May 24 both ovaries were without difficulty removed. They were greatly enlarged by follicular degeneration, a condition which Dr. G. had repeatedly seen in cases of fibroid tumor. The effect of the operation on the tumors, and especially on the main one, was astonishing. After two weeks this fibroid had diminished in length nearly a hand's breadth. Her recovery was prompt, and she was sent to Atlantic City to recruit.

On July 10, just forty-seven days after the operation, she called on Dr. Goodell, who found the tumors very greatly reduced in size and the uterine cavity measuring only three and a quarter inches, a diminution of four and a quarter inches. This extraordinary amount of diminution, in spite of the fact that the obliteration of the ovarian blood-vessels cut off only a small portion of the blood-supply to the womb, drove him to the conclusion that the ovaries were the important factors in inviting the blood to the womb. Every successful case in which he had removed the ovaries for fibroid tumor of the womb had been followed by the menopause and by rapid diminution in the size of the tumor. But in his hands and in those of others this operation is more fatal than that of ovariectomy. During the ten months of the present year he had had twenty-five cases of ovariectomy, with but one death, and that one in a lady operated on at her home, two hundred miles from Philadelphia. For simple cases of oöphorectomy the mortality should not be greater than that of ovariectomy. But when complicated with the presence of a large or an adherent fibroid tumor, the operation is often one of great difficulty. Twice during the past year he was unable to reach the ovaries and was compelled to abandon the operation, because in neither case was the woman willing to undergo the risk of having hysterectomy performed. Each case recovered, and while the women were under observation the tumors appreciably lessened in size, as if the shock of the exploratory incision had temporarily suspended the ovarian influence.

Dr. MONTGOMERY was glad to hear the

good results in Dr. Goodell's cases. In a few of the cases upon which he had operated the menopause did not at once occur, sometimes not for two years after the operation. In such cases the tumor did not decrease in size while menstruation continued. In the case of hysterectomy for fibroid tumors reported by Dr. Montgomery at the last meeting, the temperature at no time exceeded $101\frac{3}{4}^{\circ}$, and the patient left the hospital to-day perfectly well. He preferred removal of the uterus and its appendages entire when the ovaries cannot be removed in consequence of previous inflammatory changes. Ligation of blood-vessels supplying the tumor might be useful when nothing better could be done.

Dr. BAER thinks that when the ovaries can be removed, it is the preferable operation.

Dr. GOODELL has been so uniformly successful in removing the ovaries for the cure of fibroid uterine tumors that it is his choice. He has been notified that in a case of fibroid tumor of the womb in a woman aged 33 years he will be called in consultation: this will be the third. He will advise removal of the ovaries; if at the time of operation that is not found possible, he will close the incision, as the other operation is very dangerous and the patient can certainly live a few years as she is. In only one case of his oöphorectomies had the menses continued, and he thinks that in that case there must have been some supplementary ovarian tissue.

OVARIOTOMY.

Dr. MONTGOMERY exhibited for Dr. WARDER a large ovarian tumor and related the following history. The patient was a young woman. Her menses commenced at seventeen years of age, and had always been irregular. They ceased entirely for twelve months, and at the same time the abdomen was enlarging until the tumor reached above the navel. Fluctuation was doubtful; the mass seemed quite solid and pressed the uterus down into the pelvis. Anæsthesia did not relax the abdominal wall, and diagnosis was doubtful. An exploratory incision showing the pearly tint of an ovarian tumor made it sure. Nothing would pass through the trocar, but some of the jelly-like contents of the tumor escaped beside it and passed into the abdomen. The large cyst was filled with small cysts. The patient did well for one week; then the pulse became rapid; but she has since been doing well, and is now rapidly recovering.

Dr. GOODELL thought that the danger from the escape into the abdomen of cyst-contents is overrated.

Dr. BAER said that in the early stage of ovarian tumors metrorrhagia is sometimes present; sometimes the menses are entirely absent. He should like to hear from the Society some reason for this inexplicable difference.

Dr. GOODELL had observed the same facts, but could throw no light upon the subject.

Dr. MONTGOMERY remarked that in this case both ovaries had undergone cystic degeneration. The second ovary contained numerous small cysts.

Dr. BAER inquired about the treatment of the second ovary.

Dr. MONTGOMERY replied that it was removed.

SOME USES OF COCAINE IN GYNÆCOLOGY. BY CHARLES HERMON THOMAS, M.D.

Seldom does a new drug reach so sure a place in the confidence of the medical profession as that accorded to cocaine. I early began its employment in ophthalmic practice, and soon extended its use among other things to a variety of gynæcological applications. The results obtained have been so satisfactory that I now never go to such a case without cocaine in my bag or pocket. After considerable experience in its use, I am convinced that it is quite as valuable in the latter class as in the conditions for which it was originally recommended. That it is a local anæsthetic, when applied to mucous surfaces especially, is a familiar fact; but its property of rapidly reducing engorgement and swelling of the same class of tissues is not so generally recognized, notwithstanding this is a point of considerable practical importance. This action of the drug is readily verified by observing the marked paleness and shrinkage which follow in a few moments after its application to surfaces thus affected. While this condensation of tissue is to a considerable degree temporary, it seems to be of longer duration than the accompanying anæsthesia. In some cases the good results obtained by reducing hyperæmia in this manner appear to be permanent. The common fear that it will fail to prevent pain may usually be overcome by placing a few drops of the solution on the tip of the patient's tongue, when the numbness produced is quite sure to induce full confidence in its efficacy. Cocaine hydrochlorate is the salt upon which my experience is based.* A four-per-cent. solution (gr. iiss to f3j) in water acts well for most purposes, though a somewhat weaker or stronger one may sometimes be substituted with advantage. The addition of boric acid in the proportion of gr. ij to the f3j insures stability of the solution, while a little glycerin prevents too rapid drying.

When used, it should be applied with thoroughness, the parts being first freed from mucus, and some minutes allowed to elapse for its effects to develop; the time should be *not less than two minutes*, and, in cases where considerable pain is to be anticipated, a strong solution (ten per cent. or more) may be employed, and the application repeatedly made at intervals of two minutes, when in five or

* The price has been reduced to ten cents a grain or less.

at most ten minutes from the beginning the full effects of the drug may be looked for. That the anæsthesia produced by cocaine is profound I have personally experienced, having made use of a four-per-cent. solution by injection into the nostrils previous to an application at the hands of Dr. Harrison Allen of the galvano-cautery to the nasal cavity. The cautery had been applied on a previous occasion without the full effect of cocaine being produced, and the pain was severe. With it not the slightest pain was felt, and I was conscious of the action of the cautery only by the hissing sound produced.

I have found it particularly valuable in certain cases of cervical endometritis, in which, though there may be no erosion externally, and but little characteristic discharge, there is a state of extreme hyperæsthesia existing about the region of the internal os uteri,—a probe or cotton easily bringing blood, and any application made to the part is liable to produce bleeding and severe radiating and ovarian pain. Cocaine carefully applied with the syringe or the cotton-carrier prevents the pain and bleeding which would otherwise follow the necessary medicinal application. The swelling is also materially reduced, and the congestive or inflammatory stenosis which usually exists is consequently for the time relieved, so that applications to the part itself, as well as to the entire endometrium, are greatly facilitated. In urethral caruncle sensibility may be so destroyed by cocaine that the painful excrescences can be clipped off and the site painlessly cauterized. Cocaine is also extremely useful in painful irritation and inflammation of the female urethral tract, and especially of the part just within the meatus, a condition attended with distress frequently referred to the bladder. Appropriate medication is painlessly made after its application, which may be conveniently done by means of the glass medicine-dropper. As a means of preparation for the operation of stretching either the urethra or the cervix uteri it is of unquestionable value. To precede the application of caustic to chancre it is also effective. I am informed by my friend Dr. Levis, who has had a large surgical experience with the drug, that in plastic operations upon the vagina, where considerable surfaces are to be flayed, the cocaine-anæsthesia is insufficient to prevent pain. It has been recommended in dysmenorrhœa, and there is good reason to believe from several reports which have been made that it is capable of producing excellent results when applied to the os uteri and to the cervical cavity by means of a small cotton tampon. I tested it recently in a case of uterine colic, using it hypodermically in two doses of one grain each about half an hour apart, but without appreciable relief. Some general nervousness was complained of, but otherwise there were no uncomfortable results. It has been tried internally in doses of one grain or

more in the vomiting of pregnancy, and has met with some favor, but in the only case within my own knowledge it entirely failed.

In a case of painful vaginismus, with dyspareunia, brought me by a practitioner from a neighboring city, the condition was quickly relieved by the local application of cocaine, and a complete examination was easily made, where without its use general anæsthesia would have been necessary. In a case of hyperæsthesia of the vagina with mild vaginismus, in which frequent local treatment was required, a suppository containing one grain of cocaine introduced into the vagina a half-hour before each treatment entirely abolished the spasm, and rendered the introduction of the speculum easy and comparatively painless. Cocaine suppositories also produced excellent results in a case of rectal tenesmus in which opium had proved inefficient.

Cocaine has been recommended in operations for lacerated cervix and in lithotomy. I have not made use of it in either of these applications, but strongly believe in its value.

In one hyperæsthetic patient in whom violent pain was developed on slight provocation, and who required local treatment of the cervix uteri and urethra, but who suffered so much from ordinary applications that the local benefit was fully counterbalanced by harm done nervously, it became necessary to suspend treatment on this account. After cessation for six months, treatment was resumed under cocaine, and it has since been in every way satisfactory, the pain formerly produced by applications to the cervix being entirely absent. In the same patient painful irritability, with spasm of the bladder simulating cystitis, which was not entirely relieved by the opium suppository and other measures, yielded completely and thus far permanently to a single injection of one grain of cocaine thrown into the bladder. The resumption of treatment in this instance was largely due to the enthusiastic approval of the husband, who had himself experienced complete relief from the injection of a drachm of the two-per-cent. solution into the deep urethra for a violent urethrismus. In another instance, a woman with irritable piles, who was suffering extreme discomfort, the piles shrank and turned pale under the cocaine application, and were then painted with tincture of iodine with entire absence of pain at the time, and with much subsequent benefit.

Dr. KEATING had used cocaine for some time in the same class of cases. He now uses eight-per-cent. solutions with great success, especially in children's throats. He employs salicylate of cocaine in diphtheria in a five- or six-per-cent. solution. Sensibility disappears in a short time, and he can then use any application without discomfort. He applies carbolic acid, tincture of iodine, etc., in this manner without exciting pain. He also applies cocaine before injecting carbolic

acid into piles, and also applies it on cotton to prevent its action ceasing too soon.

Dr. THOMAS said that the strength of the solution may, with propriety, be greatly varied, and that in his practice in ophthalmic cases a one-per-cent. solution had been found strong enough to be of considerable value in conditions of irritation such as that produced by foreign bodies in the eye; but in other cases, as urethral caruncle, it might be well to use it even in saturated solution. The question of strength is largely a question of expense, for in local application made under the observation of the physician no toxic results are likely to be produced.

W. H. H. GITHENS, M.D.,
Secretary.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

MEETING OF NOVEMBER 12, 1885.

The President, J. C. WILSON, M.D., in the chair.

DR. FUSSELL presented specimens from a case of

MASTOID DISEASE.

Male, æt. 25 years. Never had scarlet fever. Since vaccination at the age of five years had had occasional attacks of suppuration of the middle ear. General health was good. Was first seen by Dr. Fussell July 14. For several weeks he had had earache, with one slight chill. When seen, hearing was very poor, tympanic membranes opaque, swelling and redness of the left mastoid process, and temperature elevated. His general condition grew worse, and an incision was made over the mastoid process, but it failed to find pus. On extending this incision a few days afterwards, pus flowed freely, and he was much relieved. He afterwards grew worse, fell into a typhoid condition, and died July 24. Before death, blood oozed freely from the cutaneous surface. At the autopsy the mastoid cells were found filled with pus. In the inner half of the process was a large, irregular cavity filled with a pultaceous mass of necrosed bone: this communicated with the middle ear. The walls of the lateral sinus were thickened, easily detached from the bone, and the seat of a purulent inflammation. The sinus contained no thrombus. The meninges over this part were discolored, though not inflamed; but there was a patch of inflammation over the anterior edge of the left lobe of the cerebellum. Brain-substance was normal. Remaining organs were not remarkable, except the right lung, which contained in its apex two small abscesses. From the condition of the sinus, the reporter thought there had been an actual admixture of pus with the blood.

Dr. PACKARD presented an

ANOMALOUS LUNG.

It was taken from the body of a negro who died of Bright's disease. From the inferior surface of the lower lobe of the right lung springs a tongue-shaped process of pigmented, crepitant lung-tissue, two and a half inches long and two inches wide at the base, resting upon the diaphragm, its upper surface being in apposition with the under surface of the lower lobe. Dr. Packard had recently seen in the body of another negro a similar anomaly, except that the process was smaller and situated more anteriorly.

Dr. MUSSER presented a

CYSTIC KIDNEY.

It was the right kidney, and was taken from the body of a man, æt. 72 years, who died of apoplexy. The kidney was cirrhotic and contained two cysts, the larger occupying the upper one-fourth of the organ. Its walls were firm, and it contained clear fluid, in which floated cheesy masses, which the reporter thought were degenerated pus. When first seen, the patient was passing small quantities of bloody, highly albuminous urine, and complained of pain in the right renal region. These symptoms were apparently due to an acute process grafted upon the chronic lesion. The blood and most of the albumen disappeared, but the pain persisted. Was this pain due to the cyst?

Also, a

CARCINOMA MAMMÆ,

removed from the body of a woman æt. 75 years. The breast had been injured eight years ago, and three years afterwards the tumor was noticed. There was never any pain in the tumor. The lymphatic glands of the axilla were involved. In addition, there was a large lipoma of the back of the arm. She had frequent attacks of pain in the tibiæ and left parietal bone, apparently due to periostitis, and not to any secondary growth. There was no syphilitic history.

Also, specimens from a case of

DIABETES MELLITUS.

Female, æt. 43 years; had a vesico-vaginal fistula fourteen years. Diabetes had existed without apparent cause two months. Patient was unusually fat, and had lost no weight. She died of coma. Temperature in the abdominal cavity three hours after death was 107.8° F. Liver large and fatty; gall-bladder contained thirty stones; kidneys fatty; pancreas normal. Blood had a most marked lactescent appearance, and after standing twelve hours globules of fat collected on its surface. Lacteals in the mesentery engorged with chyle. Microscopic examination of lungs showed no fat-emboli. In the urinary bladder was a large phosphatic calculus.

Dr. OSLER thought the peculiar condition of the blood was what we should find nor-

mally in a person dying during digestion, and called attention to the fact that very frequently in diabetics there is engorgement of the lacteals.

Also, a

FŒTUS PAPYRACEUS.

The mother was delivered in the morning of a mature, living child, and in the evening of this fœtus. It is apparently of the fifth month of pregnancy, and, with the exception of shrivelling and paling of the skin, is quite normal. The cord is thin and soft, its length unknown. The placenta is thin, flat, compact, and whitish yellow, apparently having undergone complete fatty degeneration.

Dr. J. B. ROBERTS presented a small tumor, the size of a hickory-nut, which he had removed from the back of the wrist of a young man. It had the clinical appearance of an ordinary ganglion, but attempted evacuation showed it to be solid. It was then enucleated and found to have been developed within the theca of the tendon going to the middle finger, and probably between its fibres. The great rarity of solid tumors in this locality was mentioned.

Dr. OSLER asked if the patient had a rheumatic history, although this specimen was rather large for a subcutaneous nodule occurring in rheumatism.

Dr. ROBERTS knew nothing of the history.

Dr. NANCREDE presented fluid from an encysted hydrocele. The fluid contained large numbers of dead spermatozooids.

Dr. HUGHES presented a

PRIMARY CARCINOMA OF THE LIVER.

Female, æt. 58 years. A daughter died of cancer of the uterus. She had been in good health till eighteen months ago, when flesh and strength began to fail. With this there were occasional attacks, lasting about a week, of headache and sick stomach, followed by diarrhœa. There was pretty constant lancinating pain in the hepatic region. Five months ago she had an attack of jaundice (her only attack) lasting two weeks, and at this time a tumor was detected in the liver. At the autopsy the liver was found much enlarged, and scattered through its substance were firm cancerous nodules, varying in size from an orange to a pin-head. In addition to these there were several cysts, one in the left lobe two inches in diameter, filled with clear fluid. The liver-substance between the cancerous nodules was normal. The gall-bladder was full of healthy bile, and the ducts patulous. There were no enlarged glands in the fissure of the liver, but the retro-peritoneal and mediastinal glands were increased somewhat in size and the seats of secondary deposits. With these exceptions, there was no growth outside the liver. The intestines were crowded into the left side of the abdomen by the enlarged liver. The stomach

was very small, only one inch in diameter at its fundus. There was an intussusception three inches in length at the ileo-cæcal valve, which, on being reduced (which was effected with some difficulty), showed the apposed surfaces of peritoneum covered with lymph.

Dr. FORMAD presented specimens and read a paper on

AN ANALYSIS OF TWO HUNDRED AND FIFTY AUTOPSIES ON DRUNKARDS, ILLUSTRATING THE MOST PROMINENT ANATOMICAL LESIONS OF CHRONIC ALCOHOLISM.

He considered the most conspicuous lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach. His cases had been those in which there had been a history of a long-continued series of debauches, the subjects often dying in one of these debauches, and did not include moderate drinkers or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic excesses. He thought that the exposure, irregularities of diet, etc., incident to a state of drunkenness had much—probably more than the alcohol itself—to do with the production of the lesions; but it was not at all possible to separate one from the other. He gave a long list of lesions considered by various authors to be results of chronic alcoholism, among which the cirrhotic liver with contraction held a prominent place. He had himself at one time considered cirrhosis a very frequent, if not almost necessary, concomitant of long-continued, excessive use of alcohol, and had even testified in court that a certain person was not likely to have been a hard drinker, because at the autopsy no cirrhosis of the liver was found. He had thought, too, that the connection between the two was so close that it was impossible to have a case of cirrhosis without a previous history of alcoholism, as is held by various authors. Therefore it was surprising to him to meet in his two hundred and fifty autopsies with only six cases of cirrhosis of the liver with contraction. In two hundred and twenty cases the liver was considerably or even very much enlarged, the enlargement in most cases proving to be due to a fatty infiltration. Cyanotic induration of the kidney and chronic gastritis, with mammillation of the stomach, were found in nearly every case. This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart-disease. At a future meeting he will give a detailed account of the above lesions and a more extensive analysis of the cases.

Dr. TYSON could not speak from a systematic observation of a large number of autopsies in the cases of confirmed drinkers, but he remembered distinctly being surprised in several cases by the absence of cirrhosis where he confidently expected to find it.

Dr. WILSON said that Anstie, in the article

on alcoholism in Reynolds's "System of Medicine," had called attention to the comparative infrequency of contracted liver in confirmed drinkers. This observer, in an extensive out-patient practice in London, had seen large numbers of cases of alcoholism, but very few among them presented the physical signs of cirrhotic (contracted) liver. The experience of the staff at Blockley Hospital sustains this view. There many of the patients are soaked with alcohol; but even among those whose death is directly or indirectly due to alcoholic excess, fatty liver is much more common than contracted liver.

Dr. OSLER thought the experience of pathologists and morbid anatomists with histories of patients is not of the most satisfactory character, he often having had cases to dissect where he knew very little of the history. Before saying these cases were chronic alcoholics, Dr. Formad should present more specific statements about them. His own experience with livers in a large number of autopsies on cases of chronic alcoholism had led him to divide them into four classes: 1. Those in which the condition of the liver is pretty satisfactory: some of these cases may take alcohol for many years and yet the liver pass muster. 2. Fatty cirrhotic livers; the cirrhosis may not, perhaps, be distinct to the naked eye, but plainly shown by the microscope: this is the largest class. 3. Hob-nail livers: these he would say were much more common than in Dr. Formad's series. 4. Hypertrophic cirrhotic livers. The difference between his observations and those of Dr. Formad might possibly be accounted for by a difference in the form of alcoholic beverage taken. He had not observed the special form of kidney described by Dr. Formad. In reply to a question, he said, in order of frequency, he would place them: fatty cirrhotic, hob-nail, hypertrophic cirrhotic, apparently normal.

Dr. S. SOLIS COHEN said there were certain theoretical considerations which suggested themselves in this connection. The text-books teach that the lesions of alcohol are of two kinds, sclerosis and steatosis. It is known that in some organs the fibrous change precedes the fatty one. The latter is the higher grade of degeneration. The subjects of Dr. Formad's autopsies were confirmed whiskey-soakers, in whom one would expect to find more intensity of degeneration than in those whose use of alcohol, though persistent and excessive, was not so outrageous. Another point, which had not been alluded to, was the fact that some lesions might result from a local action of the poison upon the tissues, while others might be due to its systemic action. No study of the subject could be complete in which these points were overlooked.

Dr. RANDALL suggested that the point touched upon by Dr. Osler—the character of alcoholic beverage—might be very impor-

tant. In Vienna, among beer-drinkers, he had found the fatty liver much more common than the cirrhotic; while in England, where much gin is drunk, and he should suppose in Scandinavian countries, where they drink altogether strong spirits, the cirrhotic liver is doubtless comparatively frequent.

Dr. MUSSEY had recently had to go over the records of the Pathological Society, especially in liver-diseases, and had found the total experience of different observers the same as Dr. Formad's, and also in those cases cirrhosis was caused not so much by heavy drinking as by persistent drinking of spirits on an empty stomach.

Dr. FORMAD presented the

SAC OF AN EXTRA-UTERINE PREGNANCY.

The woman from whom this was removed had not suspected that she was pregnant. She was in perfect health till twelve hours before death, when she was suddenly seized with excruciating pain in the left groin, rapidly followed by collapse. On opening the abdomen, it was found to contain at least a gallon of partly-clotted blood. About the middle of the left Fallopian tube was the sac, with a rent in its posterior wall. This sac was one inch in diameter, and contained clotted blood and placental tissue. The uterus was twice its normal size. The fœtus was not found.

Also, an

ANEURISM OF THE ASCENDING AORTA, RUPTURING INTO THE PERICARDIUM.

The patient was a laboring-man, and had considered himself in perfect health. He died very suddenly. The aneurism, one-half inch in diameter, was situated just above the posterior aortic leaflet, and had broken through the wall of the aorta at the point where it touches the descending cava. The cavity of the pericardium was fully distended with clotted blood.

W. E. HUGHES, M.D.,
Recorder.

THE NEW YORK STATE MEDICAL ASSOCIATION.

A MEETING of the Association was held in New York November 17, 18, 19, and 20, 1885.

The President, Dr. John P. Gray, of Utica, occupied the chair at most of the sessions. The total number registered amounted to about two hundred and twenty; the total membership throughout the State is about five hundred and fifteen. The attendance at the different sessions was usually good. The President for the next year is Dr. E. M. Moore, of Rochester.

Dr. Gray, in his address on "The Relations of the State to Medical Science," pointed out

those relations as they exist in New York State at the present time, and, remarking upon proposed changes, he expressed his views in opposition to a State Board of Medical Examiners or of separating the power to grant diplomas and license to practise from the medical teaching bodies. Our medical colleges had had a great deal to contend with in their efforts to elevate medical education, but their efforts had to a considerable degree been crowned with success; and they would probably succeed, as the need of it became more and more apparent, in raising the standard of preliminary medical education.

The reports of the Presidents of the several Branch Associations and of the New York County Medical Association showed that there had been a good deal of scientific work done throughout the State during the year.

Dr. Alfred L. Carroll, in an address on "State Medicine," pointed out the need of more thorough instruction in sanitation (as the term was used in its restricted sense) than at present generally existed among physicians. The greatest ignorance of sanitary matters, and also of orthography, was shown to exist among a large number of applicants for positions on local boards of health. The requirements in England of one about to enter upon the study of medicine and of those about to go out into active practice might seem to be pretty severe and extensive, but they were no more than should be exacted of every man who had the health of his fellow-beings placed in his care. The trouble with the colleges here was not that they failed to give opportunity for a good medical education, but that they did not compel every student to avail himself of that opportunity to the greatest extent.

Dr. Didama, in a paper on "Tubercular Consumption; is it ever Inherited?" expressed his belief in the germ-theory of the disease, and said he did not think it was ever inherited. It had never been found to exist in the body of a foetus, and the statistics of life-insurance companies showed the great numbers of those suffering from the affection whose parents had been free from tuberculosis. He believed that the families of those having tubercular consumption were more likely to acquire it than others, because of exposure to infection and an inherited feeble constitution.

Dr. Rochester, in discussing the paper, related two cases which were opposed to the view that the disease was not hereditary. A child died three weeks old with the symptoms of consumption, and at the autopsy one lung was full of miliary tubercles and the other contained a cavity the size of a hickory-nut. The father had died of consumption prior to the birth of the child; the mother was a healthy woman. In a second case the child suffered from all the symptoms of consumption for some time, and died aged eighteen months. The father had died with consump-

tion before the birth of the child; the mother was healthy.

Dr. Simeon Tucker Clark read an instructive paper on "Psoitis and Peripsoitis; their Pathology and Differential Diagnosis." The paucity of the literature on this subject was shown. The author narrated three cases which had come under his observation, in which psoitis had followed an injury,—in one of the cases the injury having occurred during roller-skating, and in another while throwing grain-bags upon a wagon. The patient felt pain in the region of the psoas muscle, extending down the leg, the motion of the limb being painful. A boggy tumor then appeared in the hypogastrium. This tumor was at first composed of serous exudates, which if allowed to remain would undergo pustular change, invade the neighboring tissues, the periosteum, and bone. The object of the treatment was to prevent this train of symptoms. The tumor on being recognized should be emptied of its contents, the wound being treated antiseptically in the usual manner. In one of the cases reported the patient died, and the extension of the disease from the soft parts (where it had evidently started) to the periosteum and bone was demonstrated. In another case the discharge took place spontaneously into the bladder, but later an external opening was made and the patient made a good recovery.

Dr. Frederick Hyde, in discussing this paper, considered it as one of very great importance, for many of these cases doubtless went on unrecognized, and led to a condition of things called Pott's disease, etc. He had seen some cases of the kind described by the author, and the treatment which had been suggested was of the utmost importance to prevent the decomposition of the pus, the destruction of the periosteum and bone, and the development of sepsis.

The short communications on the subject of "Shock, and the Effects of Injuries on the Nervous System," by Drs. Charles W. Brown, Frank H. Hamilton, and E. S. F. Arnold, brought out some interesting points, more particularly perhaps regarding insidious shock as seen by Dr. Brown, and Dr. Hamilton's opinion concerning railroad shock, and Dr. Arnold's concerning the part played by the sympathetic system in the production of shock. Dr. Hamilton said that if there was a peculiar form of shock which deserved the name of railroad shock, it was that in which the peculiar motions (like cracking a whip) during an accident while sitting in a railroad-car caused a strain or injury to the spinal ligaments and parts which sustained the vertebral column rather than to the spinal cord itself, the immediate symptoms not being of a grave character, but assuming a type which indicated secondary implication of the spinal cord. Dr. Arnold thought the symptoms in shock indicated a cessation of nutrition of

vital organs, which in health was controlled by the sympathetic system. It was analogous in character, but less in degree, to the condition produced by lightning and hydrocyanic acid. It was true, some claimed that death from hydrocyanic acid was due to cessation of heart-action, but this might be due to the action of the drug upon the sympathetic system, destroying its life, and with it the vitality of all the organs over which it presided.

Dr. Carlos F. McDonald reported an interesting case of "Gunshot-Injury of the Head followed by Insanity, Cerebral Cyst, Operation, Recovery." The injury was situated over the right first frontal gyrus, corresponding to the junction of the anterior and middle thirds, three-eighths of an inch to the right of the median line. A physician had extracted the pistol-ball, and the opening in the skull became covered with fibrous material. The patient manifested symptoms of insanity for some time after the accident, and the brain beneath the wound was penetrated by the hypodermic needle in four places, the last time nearly clear serum being found and about two drachms removed. When the patient came from under the influence of the ether he expressed great pleasure at relief from pain, which he had long suffered over the wound. He was rational, and gave a complete history of his case, except for a period when unconscious. None of his old symptoms had returned. The great rarity of cerebral cyst was mentioned.

Dr. Ely Van de Warker read a paper on "The Medico-Legal Bearing of Pelvic Injuries in Women," in which it appeared that suits based on supposed injuries to the pelvic organs in women from falls, etc., sustained from bad sidewalks, railroad injuries, and the like, were becoming quite numerous, and they were almost invariably without foundation; yet the difficulty of obtaining a thorough examination of the patient, to show that her symptoms depended upon prior conditions independent of the accident, and the fact that the defendant in the suit was usually a supposed wealthy corporation, without feeling, led the jury very unjustly to render a verdict in favor of the complainant.

The following is a leaf taken from the programme, and constituted the work of the night session of the 17th of November, the discussion being completed the next morning:

"DISCUSSION ON PNEUMONIA.

"This discussion was opened by Austin Flint, M.D., with a paper in which he propounds eight questions relative to the nature, pathology, prognosis, and treatment of acute lobar pneumonia.

"QUESTION 1. Is acute lobar pneumonia a primary local inflammatory disease, or is it an essential fever, the pulmonary affection being secondary thereto and constituting its anatomical characteristic?

"QUESTION 2. What facts and rational grounds, with our present knowledge, can be cited in support of the doctrine that acute lobar pneumonia depends on the presence of a specific micro-organism?

"QUESTION 3. What conditions or circumstances incident to acute lobar pneumonia tend to render the disease fatal?

"QUESTION 4. Are there known remedies or therapeutic measures capable of arresting this disease, or of exerting a curative influence by either shortening its duration or conducting in any way to a favorable termination?

"QUESTION 5. Is blood-letting ever indicated in this disease, and, if so, what are the circumstances indicating and contra-indicating this measure of treatment?

"QUESTION 6. Is alcohol useful in the treatment of cases of acute lobar pneumonia, and, if so, what are the indications for its use, and how is its use to be regulated as regards the quantity given, etc.?

"QUESTION 7. To what extent is it safe and useful to employ antipyretic measures of treatment in cases of acute lobar pneumonia, inclusive of the cold bath, sponging the body, or the wet sheet?

"QUESTION 8. Do relapses of acute lobar pneumonia ever occur during or shortly after convalescence, and does this disease involve any special liability to other diseases or sequels?"

While Dr. Flint's views on the subjects for discussion were already pretty well known to the profession, the matter contained in his paper was well arranged and clearly stated, and the contribution will constitute one of the ornaments of the forthcoming volume of Transactions. The author gave his reasons for believing that acute lobar pneumonia is an essential fever. He also believes the disease is due to a specific micro-organism. The value of some remedies was pointed out, more especially of quinine, of alcohol, of blood-letting, and of the wet sheet,—all under suitable circumstances or circumstances indicating their use, for it was to be remembered that acute lobar pneumonia tended naturally to recovery. Dr. Flint never knew a relapse to occur in acute lobar pneumonia during or shortly after convalescence.

In most respects, the gentlemen who discussed the questions expressed views in harmony with those of Dr. Flint.

Dr. Austin Flint, Jr., read an address on "Some of the Relations of Physiology to the Practice of Medicine," and Dr. E. G. Janeway, one on "Pathology." They were interesting reminders of the past and present advancements in medicine, and of the interdependence of the several branches of medicine.

Among other interesting papers was one by Dr. Isaac E. Taylor on "Recto-Labial or Vulvar Fistulæ," in which he advocated treatment

by ligature; one by Dr. Frederick Hyde on "The Difference in the Symptoms of Strangulated Oblique Inguinal Hernia;" "Recurring Luxations," by Dr. E. M. Moore; "A Case of Gall-Stones, Patent and Concealed; Exploratory Laparotomy, with Autopsy Ten Weeks Later," by Dr. W. W. Seymour; "The Action of Micro-Organisms upon Surgical Wounds," by Dr. F. S. Dennis; "Causes of Failure in the Treatment of Urethral Stricture by Electrolysis," by Dr. Robert Newman.

Altogether there were fifty-three papers for presentation before the Society. Many of them were not read, and a few of those which were read had the fault of trying to be complete treatises on the subjects with which they dealt. To write an exhaustive paper or treatise on any given subject is doubtless a more difficult task than to relate a case which may have a bearing on some of the points connected with that subject, yet one who chose the easier task would be listened to with greater interest by a body of scientific men than he who wearied patience by repeating that which is to be found in the medical textbooks.

Whether or not the Society acted wisely in deciding not to allow any of the papers to be published in the medical journals until they shall have been printed in the volume of Transactions can better be determined after two or three years' trial, but usually proceedings which are published only in a volume of Transactions are buried to general view, and thus injustice is done to those who have spent much labor and time in preparing them.

R. C. S.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held November 25, 1885, the President, JOHN A. WYETH, M.D., in the chair.

TOXIC EFFECTS OF COCAINE.

Dr. H. J. BOLDT said that some time ago, having encountered serious symptoms apparently from the use of cocaine, he determined to experiment with the drug upon animals. In the presence of Dr. Spitzka and others he injected eleven minims of a thirty-three-per-cent. solution of cocaine into a cat weighing seven and a half pounds. The first effect was upon the gait, which was somewhat leaping, with dragging of the hind extremities. Soon there followed convulsions, perhaps forty in number, and twelve minutes after the injection death took place. The respiration simulated the Cheyne-Stokes respiration. Just after death the rectal temperature was 104°.

The autopsy, which was made half an hour after the cat ceased to breathe, showed intense congestion of the vessels of the pia mater of both brain and cord. There was an extravasation of blood in the fourth ventricle,

and also a small extravasation in the anterior part of the medulla, and minute extravasations throughout the brain.

The lungs were collapsed, contained no blood; the right ventricle of the heart was overdistended with blood, while the left was empty. Death had apparently taken place from paralysis of the respiratory centre. The gray substance of the cord resembled a bloody sponge.

Dr. PUTNAM JACOBI would suppose the phenomena mentioned by Dr. Boldt pointed rather to contraction of the blood-vessels from vaso-motor irritation, such as occurred during the local effects of cocaine, and it would seem that death occurred from secondary obstruction to the circulation in the right side of the heart following contraction and obstruction of the pulmonary vessels.

The PRESIDENT said that, all the capillaries throughout the body being affected, the heart became paralyzed: first, the right ventricle, because it was the weaker. He also remarked that respiratory and cardiac shock was more likely to occur from invasion of the surface in the neighborhood of the fifth nerve than in any other locality. He further directed attention to the danger of using chloroform or ether after cocaine. A distinguished surgeon had lost a patient by giving chloroform after the unsuccessful use of cocaine, and this surgeon had cited another case in which death followed the use of ether, cocaine having first been employed unsuccessfully.

Dr. CARPENTER said this Society had already expressed its opinion in most positive terms against the use of chloroform as an anæsthetic.

Dr. PRUDDEN said the lungs of a cat as compared with the human lung were very white normally, and fell back from the chest-walls on removing the sternum.

CARCINOMA OF THE UTERUS.

Dr. R. VAN SANTVOORD presented the uterus, the seat of cancer which had probably developed primarily in the cervix, affecting the body of the organ secondarily. The woman had been delivered of a child three days before death, being attended by a midwife. At the autopsy pigmentation was found in the omentum, intestines, retro-peritoneal glands, and broad ligament. The uterus was firmly fixed, the body of about twice the normal size. The cervix was entirely eaten away by the malignant process. The urethra, near its entrance into the bladder, was ulcerated. The vagina, endometrium, and uterus were infiltrated. The pelves of the kidneys were distended, and one contained considerable clear urine.

TUBERCULOSIS OF THE PHARYNX.

Dr. VAN SANTVOORD also presented a specimen illustrating tuberculosis of the pharynx

occurring in a child about two years of age, which was admitted to Randall's Island Hospital about four months before death, with a mass of enlarged glands under the angle of the jaw upon each side. There was cachexia, which increased; and two and a half months before death there was slight cough, and some râles were heard over the chest. About four days before death the house-physician thought the child had some difficulty in swallowing, and the larynx was observed to be covered with a thin grayish coating; the temperature was 102.5°. Death took place from exhaustion. At the autopsy the enlargements in the neck were found to be due to caseous change in the lymphatic glands. The pharynx presented a roughened, somewhat worm-eaten appearance, with lenticular ulcers of the mucous membrane. The same roughened appearance was observable on the uvula, which was thickened, and also on the mucous membrane lining the nasal cavities. There were two small ulcers upon the posterior surface of the larynx, and miliary tubercles were found in the lungs, upon the pleural surfaces, in the spleen, liver, and kidneys. There were several tubercular ulcers in the intestines, and the retro-peritoneal glands formed a mass, breaking down from cheesy degeneration.

Dr. Van Santvoord said Dr. Mackenzie, of London, had reported a number of cases of tubercle of the pharynx, and had expressed the opinion that the disease was less rare than was generally supposed, it probably being often mistaken for syphilitic disease.

Dr. DELAVAN said with regard to tuberculosis of the pharynx that it certainly was a rare affection, although there may have been many cases overlooked by the general practitioner or mistaken for syphilitic disease. He had seen three cases. Dysphagia in one of those cases was very great.

HOG-CHOLERA.

Dr. VAN SANTVOORD then presented the stomach and large intestine, being specimens which illustrated the lesions of hog-cholera. The stomach was the seat of gastritis, and of one ulcer, such as were found in numbers in the large intestine, and which constituted in that locality the characteristic lesion of cholera. The ulcer had a dark, dirty, sloughing centre, with elevated edges. The ileo-cæcal valve was swollen, showed irregular breaking-down ulcers, and for about ten inches above the gut was intensely hyperæmic, and the entire mucous membrane was sloughing in its superficial portion. In the descending colon were enlarged solitary follicles, with depressed, slightly ulcerated centres, which also showed distinctly upon the peritoneal surface.

He had found lesions in the brain and cord in two cases, in two there was broncho-pneumonia, and in all there was some œdema of the lungs. In one there were ecchymoses

under the pericardium and endocardium; in one there was peri-hepatitis; in all there was enlargement of the mesenteric and retro-peritoneal glands; in one case there were a few small nodules in the kidney and liver.

Dr. PRUDDEN remarked that the facts regarding the bacteria of hog-cholera were not considered as positively settled by Koch and some other authorities. That which had been discovered by Pasteur was claimed by Koch to be identical with the bacteria found in septicæmia in rabbits.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

MEETING OF NOVEMBER 23, 1885.

The President, DANIEL LEWIS, M.D., in the chair.

IN their report the Comitia Minora recommended that Drs. A. S. Purdy and A. E. M. Purdy, against whom a verdict of five hundred dollars' damages was found last week in favor of Mrs. Brown, who claimed that they had incorrectly reported that she was suffering from varioloid, be asked to appeal their case, and, if necessary, that the Society appropriate five hundred dollars for legal expenses in fighting the case.

Dr. Piffard moved that the report be laid upon the table until further information could be given by the counsel regarding the case.

Dr. Agnew moved, as an amendment, that the matter be referred back to the Comitia with power to act in the premises. He thought that great injustice had been done to two honorable practitioners and to the medical profession (which was required under penalty of violating the law to report all cases of contagious and infectious diseases to the Board of Health) in making them liable to an action for damages of five hundred dollars for complying with the law. Nevertheless, he thought it unwise to act hastily in so important a matter or to discuss it in open meeting.

The motion, as amended, was carried.

THE PRESIDENT'S ADDRESS.

The President, in his address, rebuked those physicians who gave their testimonials to compounds issued by commercial houses, quack medicines, sanitary homes, Swedish movement cures, etc. In the city of New York there was a physician to every four hundred and fifty of the population, and it was not to be wondered at that young physicians found it necessary to invent a new splint, to run for coroner, to start a new life-insurance company, to get their names on a dispensary-staff, in order to find a few patients. As he had stated in a former address, the remedy lay in rendering admission to the medical ranks more difficult, which could

only be done by raising the standard of medical study, increasing the course, and by establishing a State Medical Examining Board.

THE MECHANICAL AND OPERATIVE TREATMENT OF KNOCK-KNEE AND BOW-LEG DEFORMITIES; WITH A DESCRIPTION OF NEW FORMS OF APPARATUS AND NEW OPERATIONS.

Dr. M. Josiah Roberts called attention in his paper to the fact that many persons in both the higher and lower walks of life had minor degrees of the deformities under consideration, for which they had sought treatment, but had been turned away by the surgeon with the statement that it was only a comparatively trifling matter, and that nature would probably effect a cure. In the author's opinion, no case in which the patient thought his deformity sufficient to justify him in seeking relief should be turned away without treatment. If nature could effect a cure in some instances, mechanical measures would do the work better and in a much shorter time.

He then exhibited drawings and photographs representing knock-knee and bow-legs, either simple or in combination with various other deformities. He then exhibited a form of splint which had been employed by Dr. Davis for the cure of in-knee by exerting constant outward pressure upon the condyles. Dr. Roberts's modification of the splint used by Dr. Davis consisted in substituting elastic for rigid pressure. He also exhibited a double splint with a movable joint, by which the same object was accomplished, but taking the weight of the body off the foot. Speaking of operative measures, Dr. Roberts described the action of the osteoclast and a simple but efficient apparatus which he had devised for causing fracture of the bone by mechanical pressure. The method consisted in placing the deformed bone between two boards and applying pressure at the point of greatest convexity by means of a wooden screw. In view of improved methods of operating, the use of the osteoclast was no longer justifiable. As to chisels, Dr. Roberts had secured those of the best form and quality, but had been unable in a large number of experiments to cut out a wedge-shaped piece of bone in a clean, workmanlike manner, and he defied any surgeon to do so, either on the living subject or on the bone denuded of flesh. As to the cross-cut saw, the strokes had to be short, the teeth became clogged, and the operation was very tedious and unsatisfactory.

Dr. Roberts then exhibited the working of the electro-osteotome, by which he was enabled to divide the hardest of bones, the tibia of the sheep, in three seconds. The instrument was now so far improved that it was entirely under the control of one hand, leaving the other hand free during the operation.

It had an Edison electric lamp and mirror, by which a flood of light might be cast upon the part at will. With it the circular or the cross-cut saw, or a gouge, could be used.

Among the recent instruments of precision invented by Dr. Roberts was one for measuring and recording simultaneously any combination of angles which could be assumed at a given articulation in the human body, and another for determining the base of a wedge-shaped piece of bone necessary to be removed for overcoming a deformity of any degree. The exactitude with which the latter instrument did its work had been tested in many instances aside from operations on the human body.

A letter from Dr. Janes, of the Health Board, again called the attention of physicians to the fact that the Willard Parker Hospital, for the reception of cases of certain contagious diseases, was open. The fact seemed not to be generally known, or, at any rate, the number of cases received had not been great.

REVIEWS AND BOOK NOTICES.

ARCHIVES OF OPHTHALMOLOGY. Edited by Dr. H. KNAPP and Dr. C. SCHWEIGGER. Vol. XIX., Nos. 2 and 3. G. P. Putnam's Sons, New York.

These two numbers appear bound together, and are issued in the excellent style which is characteristic of this quarterly. The following list embraces the contents: 1. Myxosarcoma of the Optic Nerve, by Drs. Johnson and Prudden. 2. A Case of Acute Inflammation of the Lachrymal Gland. 3. Severe Orbital Cellulitis the Result of the Passage of Bowman's Probe in the Nasal Duct. Both of these cases are reported by Dr. John F. Fulton. 4. Evisceration of the Globe, by Dr. E. L. Holmes. In this operation the contents of the eyeball are removed, leaving the sclerotic and optic nerves behind. 5. Ophthalmometry, by Dr. Swan Burnett. This article gives the details of some experience with the Taval and Schiötz instrument. 6. Blindness following the Attempted Extraction of the Left Upper Canine Tooth, reported by Dr. Burnett. The retinal changes resemble those seen in cases of blindness from erysipelas. 7. Injury to the Eye from Lightning, by Dr. Laker. 8. Metastatic Sarcoma of the Choroid, by Pflüger. 9. Exophthalmus, by Dr. Suttler. 10. Removal of a Piece of Steel from the Eye by an Electro-Magnet, by Dr. Stevens. 11. Examination of the Refraction and the Dynamic Relations of the Lateral Muscles in Girls, by Beselin. 12. Resection of the Optic Nerve, by Prof. Schweigger. 13. The Measurement of the Degree of Anæsthesia produced by Cocaine, by Dr. Lucien Howe, of Buffalo. This is an account of some

researches made in the laboratory of Prof. Zuntz, of Berlin. Starting with the principle that irritation of a sensitive nerve increases the blood-tension, Dr. Howe cocained the eyes of rabbits, and then measured the blood-pressure while various forms of irritation were employed. 14. A Case of Morgagnian Cataract, by Nordman. 15. Partial Embolism of the Anterior Centralis Retinæ, by Professor Schnabel and Dr. Sachs. 16. Nine Cases of Employment of the Magnet for Removal of Iron Fragments. 17. A Case of Evisceration of the Eyeball followed by Orbital Cellulitis. Both of these are reported by Knapp. The usual Reports on the Progress of Ophthalmology, with Book Reviews, follow.

H.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE, FOR THE USE OF PHYSICIANS AND STUDENTS. By JAMES TYSON, M.D. Fifth Edition, Revised and Corrected, with Colored Plates and Wood Engravings. Philadelphia, P. Blakiston, Son & Co., 1886. Cloth, 12mo. Pp. 249.

The several editions of this useful manual succeed one another quite rapidly, showing that it retains favor with the profession; and, with the care given to the revision, and the constant additions made by the author, there seems to be no reason why it should not eventually pass through as many editions as a modern French romance. It is especially adapted for ready reference, the processes being selected with reference to the wants of the busy practitioner, and the criticisms upon the comparative availability of different processes seem to be conscientiously made from personal experience. The recent delicate tests for albumen are described, but the author expresses his preference for the clinical method of boiling the urine in a test-tube and acidulating with a small amount of nitric acid, which is sufficiently accurate when checked by a second method, in which the nitric acid is poured in first and overlaid by the urine. It might be advisable to introduce in a future edition a section upon the detection of some medicinal or toxic additions to urine, such as alcohol, salicylic acid, carbolic acid, arsenic, lead, etc.

PRACTICAL SURGERY: Including Surgical Dressings, Bandaging, Fractures, Dislocations, Ligature of Arteries, Amputations, and Excisions of Bones and Joints. By J. EWING MEARS, M.D. With Four Hundred and Ninety Illustrations. Philadelphia, P. Blakiston, Son & Co., 1885. 12mo, cloth, pp. 794. Second Edition.

This handsomely-printed text-book is appropriately and gracefully dedicated to the late Professor Gross, with whom the author was intimately associated for several years in

his duties as Demonstrator of Surgery to Jefferson Medical College.

Seven divisions constitute the work before us, which is clear in its language in its direction for applying the various forms of dressings and for performing the various operations. Surgical Dressings, Bandaging, Fractures, Dislocations, Ligature of Arteries, Amputations, and Excision of Bones and Joints comprise the subjects, which are considered systematically and in detail, without apparently omitting any point of real importance. The illustrations are numerous, and are taken mainly from Gross and other standard works on surgery, and Gray's Anatomy.

Taken altogether, it is a compendious, complete, and convenient manual of practical surgery, which the student will find of real service when preparing for his examination, and to which frequent reference can be made with advantage when he is subsequently brought face to face with the exigencies of daily practice.

AN ATLAS OF CLINICAL MICROSCOPY. By ALEXANDER PEYER, M.D. Translated and edited by ALFRED C. GIRARD, M.D., Asst.-Surg. U.S.A. First American, from the Manuscript of the Second German Edition, with Additions. Ninety Plates, with One Hundred and Five Illustrations, Chromolithographs. New York, D. Appleton & Co., 1885. Pp. 194.

The original work, "*Microscopie am Krankenbette*," by Peyer, was a book which grew rather than was made. It grew out of the habit which the author had formed of making drawings of microscopic preparations while he was studying, until he found himself in the possession of over four hundred microscopical drawings, representing principally investigations in urine, expectoration, intestinal contents, and blood. The plates, almost without exception, represent original drawings, and are beautifully executed, many of them in colors. The book consists of nine parts, giving the results of examinations of (1) the blood, (2) the mammary secretion, (3) the urine, (4) the sputum, (5) the intestinal contents, (6) the contents of the stomach, (7) the fluid contents of various abdominal tumors, (8) the secretions of the female sexual organs, and (9) various micro-organisms provoking disease. The work being intended as a microscopic atlas, the text has been made as brief as possible. All who are interested in clinical microscopy will be pleased with the design and execution of this work, and will feel under obligation to the author, translator, and publishers for placing so valuable a work in their hands. The plates in which are figured the various urinary inorganic deposits are especially fine, and the various forms of tube-casts, hyaline, waxy, epithelial, and mucous, are depicted with great fidelity and accuracy.

NEW BOOKS.

EPILEPSY AND OTHER CHRONIC CONVULSIVE DISEASES: THEIR CAUSES, SYMPTOMS, AND TREATMENT. By W. R. GOWERS, M.D. New York, Wm. Wood & Co. 1885.

FACTS AND MYSTERIES OF SPIRITISM: LEARNED BY A SEVEN YEARS' EXPERIENCE AND INVESTIGATION. WITH A SEQUEL. By JOSEPH HARTMAN. Philadelphia, Thomas W. Hartley & Co. 1885.

THE DISEASES OF SEDENTARY AND ADVANCED LIFE. A Work for Medical and Lay Readers. By J. MILNER FOTHERGILL, M.D. New York, D. Appleton & Co. 1885.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION, SEVENTEENTH ANNUAL SESSION. Held at Houston, Texas, April 21, 22, 23, 1885. Austin (Texas), Printed for the Texas State Medical Association. 1885.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES, EMBRACING THE ENTIRE RANGE OF SCIENTIFIC AND PRACTICAL MEDICINE AND ALLIED SCIENCE. By Various Writers. Illustrated by Chromo-Lithographs and fine Wood Engravings. Edited by ALBERT H. BUCK, M.D., New York City. Vol. I. New York, Wm. Wood & Co. 1885.

LECTURES ON THE DISEASES OF THE NOSE AND THROAT. Delivered during the Spring Session of the Jefferson Medical College. By CHARLES E. SAJOUS, M.D. Illustrated with One Hundred Chromo-Lithographs, from Oil-Paintings by the Author, and Ninety-three Engravings on Wood. Philadelphia, F. A. Davis, Attorney, Publisher. 1885.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By the late CHARLES HILTON FAGGE, M.D., F.R.C.P. Including a Section on Cutaneous Diseases, by P. H. PYR-SMITH, M.D.; chapters on Cardiac Diseases, by SAMUEL WILKES, M.D.; and Complete Indexes, by ROBERT EDMUND CARINGTON, M.D. Vol. I. Philadelphia, P. Blakiston, Son & Co. 1886.

THE PRACTICE OF PHARMACY: A TREATISE ON THE MODES OF MAKING AND DISPENSING OFFICIAL, UNOFFICIAL, AND EXTEMPORANEOUS PREPARATIONS, WITH DESCRIPTIONS OF THEIR PROPERTIES, USES, AND LOSSES. Intended as a Hand-Book for Pharmacists and Physicians and a Text-Book for Students. By JOSEPH P. REMINGTON, Ph.G. With nearly Five Hundred Illustrations. Philadelphia and London, J. B. Lippincott Company. 1885.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Eighteenth Annual Meeting, Pequot House, New London, Connecticut, July 14, 1885. Vol. III. Part IV. Published by the Society. Mercury Publishing Company, Printers, New Bedford, Massachusetts. 1885.

STUDENTS' AID SERIES:

AIDS TO GYNÆCOLOGY. By A. A. GUBB, L.R.C.P., etc. New York and London, G. P. Putnam's Sons. 1885.

AIDS TO MEDICINE. Part III. (Double Part.) Diseases of the Brain and its Membranes, of the Nervous System, of the Spinal Cord, and of the Ear. By C. E. ARMAND SEMPLE, B.A., etc. New York and London, G. P. Putnam's Sons. 1885.

AIDS TO SURGERY. By GEORGE BROWN, M.R.C.S., etc.

AIDS TO OBSTETRICS. (Double Part.) By SAMUEL NALL, B.A., etc. New York and London, G. P. Putnam's Sons, 1885.

NEW REMEDIES AND CLINICAL NOTES.

THE LIFE-HISTORY OF FAT-CELLS.—A study of the structure, mode of development, and retrograde metamorphosis of fat-cells, undertaken by Bobritzky, has recently given some interesting results, which are communicated to the *Centralblatt für die Medicinischen Wissenschaften*, No. 43. The investigation was conducted upon mammalia, batrachia,

and crustacea, in the laboratory of Prof. Kutschin, in Charkow. His conclusions are as follows:

1. The fat-cells of rabbits, when in indifferent fluids (weak iodine or sodium chloride solutions), afford good objects for the study of the structure of these elements.

2. Fat-cells have no proper membrane, but in its place there is an external protoplasmic layer, which becomes condensed following pressure upon the sides of the drop of fat.

3. Argentic nitrate gives good results when used as an interstitial injection, but it cannot be regarded as the specific reagent for the study of the structure of the fat-cells, because other reagents used for interstitial injection afford equally good preparations.

4. Chlor-palladium, which the author had been the first to apply to the study of the structure of the fat-cells, offers proportionately the best results, and he had been led to prefer it to all other reagents, and could recommend it to other investigators.

Usually he employs a weak solution, light yellow in color (1 gm. to 600 to 800 ccm.), not only for interstitial injection, but also for staining small pieces of adipose tissue by laying them directly in the reagent, by which the fat-cells are colored yellow. By this manipulation the parts of the cell (*i.e.*, the condensed peripheral layer, the finely granular protoplasm, with one or two nuclei, and the drops of fat) clearly appear; but also the clear transparent fluid can easily be recognized, which is found between the protoplasm and the drop of fat.

5. This clear transparent solution in the fat-cells, which usually is observed in all methods of examination of adipose tissue, is, however, an artificial product, which is formed by the diffusion of the reagent solution through the limiting membrane of the cell. (This view is demonstrated in the clearest manner by a comparison of the fresh fat-cells of the rabbit with those after treatment with chlor-palladium.)

6. Every fat lobule has its proper, characteristic, and entirely-closed vascular system.

7. In adipose tissue no nerve-endings are to be found.

8. The opinion of a few investigators (Fohmann, Arnold, Klein, etc.) that the adipose tissue is to be counted with the lymph system is without foundation. This conclusion was probably attained after a study exclusively of the fatty tissue in the omentum and mesentery, where naturally there are many lymphatic vessels to be found.

9. The fatty tissue is developed from special peculiar elementary forms, but not from connective-tissue cells. This view of the development of fat-cells proceeds from observations made upon embryos in which are found some elements in which are seen fine granular protoplasm with a clearly-defined nucleus. These elements can usually be observed at

the places corresponding with the locality of the future fatty tissue. These can be confounded neither with wandering cells (which may be distinguished by their smaller size and less finely granular protoplasm) nor with Waldeyer's plasma cells (which are seldom found, do not form groups, and are rather smaller).

10. Fat-cells are not bound together by protoplasmic processes, as Fleming has described.

11. Atrophy of fat-cells is a result not only of fasting, but also of morbid processes. It indicates an anomalous (abnormal?—Tr.) condition of the animal organism.

12. The disappearance of fat in the atrophy of adipose tissue begins in the group of fat-cells lying most distant from the arteries, on account of want of nutriment sufficient to nourish all the fat-cells in the entire lobule.

TREATMENT OF CARBUNCLE.—Referring to Dr. Bulkley's treatment of carbuncle by the application of extract of ergot, oxide of zinc, and simple ointment, and the administration of a ferro-saline mixture and calcium sulphide, the editor of the *Medical and Surgical Reporter* says that he has been in the habit of treating carbuncle in a different manner, which, however, has invariably given the best results when used in recent cases. "As soon as the initial induration announces the beginning formation of a carbuncle, from two to ten European leeches (their number depending upon the size of the carbuncle, the intensity of the inflammation, and the age and general condition of the patient) are at once applied to the indurated and reddened skin. Should it be impossible to procure leeches in time, then the antiphlogistic touch is thoroughly practised, by which is meant scarifying the parts with the point of a sharp, thin blade. Immediately after the tincture of iodine is liberally applied every three or four hours, and the part covered with absorbent cotton. Frequently the formation of pus is thus totally avoided, or, should it nevertheless occur, limited to a very small quantity. As soon as the symptoms indicate the threatening presence of pus, one small but deep incision is made, and poultices sprinkled over with Goulard's extract then take the place of the dry cotton. As soon as the pus appears upon the surface, a two-per-cent. solution of carbolic acid and water is injected every five hours into the opening, and unguent. zinci benzoatis (oxidi?), also containing two grains of carbolic acid to every one hundred grains of salve (or about nine to ten grains to the ounce), applied locally." Under this treatment it is claimed that the carbuncle either disappears by the fifth or the sixth day, or, if pus form, by the ninth or tenth day, without having given rise to any great constitutional disturbance. Internally, tonics are resorted to only

when debility of the patient indicates the necessity.

CALCINED ALUM IN INTERMITTENT FEVER.

—The use of alum is not new in the treatment of malarial affections, but the possibility of its employment in place of the costly cinchona salts gives it some claim on our attention. Dr. F. Uhle, a surgeon of the Dutch army stationed at Sumatra, gives his experience with the drug in three hundred and sixty cases treated in 1884. The usual dose of dried alum was fifteen grains, the last one being taken one hour before the usual time of accession of temperature. In remittent fever it was given in the afternoon. The daily amount varied with the fever. The higher the fever and the longer the access, the larger the dose. The largest amount in one day was six grammes, while the same results were obtained in others by two grammes. Smaller doses are not effective. In twenty-two cases he reported seventeen successes; five failing. After the chills have stopped, decreased doses of the remedy should be given for a few days.

In the five unsuccessful cases there were grave intestinal complications in two, in two others there was a continued fever, and the fifth had hectic.

Finally, it is evident that alum may replace quinine, at a less price, with better taste, and without producing disagreeable effect,—at least in pure intermittents. What the character of the other cases may be that are best treated by alum remains to be demonstrated by further observation and experiment.—*Bull. Gén. de Thérapeutique*, September 15.

RECURRENT LARYNGITIS.—Prof. E. Fletcher Ingals, in a paper read before the Illinois State Medical Society, calls attention to the relation of cause and effect existing between recurring attacks of laryngitis and obstruction of the nares, or ordinary catarrh, and makes practical suggestions as to treatment. He concludes as follows:

1. Recurrent laryngitis is usually dependent upon obstruction of the nasal cavities.
2. This obstruction, in the majority of cases, is caused either by deflection and thickening of the septum, or by what is known as hypertrophic catarrh.
3. To effect a permanent cure the obstruction must be removed.
4. The operative procedures necessary for the removal of these obstructions may be made painless by the use of hydrochlorate of cocaine.
5. This method of treatment, properly carried out, may be relied on to cure the catarrh and the laryngitis which it has caused.
6. Great improvement in the general health often results from the removal of the nasal obstruction.
7. In acute colds or exacerbations of hy-

peritrophic catarrh, immediate relief may be obtained by the insufflation of small quantities of cocaine.

The lecturer, in the treatment of acute colds, uses cocaine, four parts; starch, sugar of milk, ninety-six parts, in fine powder. A small quantity to be blown into the nares at bedtime.—*Four. Amer. Med. Association*, December 5.

TREATMENT OF CHOLERA BY ENTERO-CLYSIS.—During the epidemic of cholera in Naples last year, Prof. Cantani had abundant opportunity of witnessing the effects of a method of treatment which he highly recommends (*Il Morgagni*), by copious tannin injections into the blood and warm saline hypodermic injections. He considers an attack of cholera to be divided into two marked stages,—1, of infection; 2, of intoxication. The slowing and final arrest of the circulation is due to cardiac failure and progressive thickening of the blood. In order to prevent this, he proposes replacing the water lost by hypodermoclysis. Attaching great importance to the development of ptomaines in the intestinal tract, he considers that the poisonous process is efficiently checked by copious enemata of astringent and antiseptic solutions. The amount of fluid must be large enough to pass the ileo-cæcal valve and irrigate the small intestine. The solution he employs varies in strength from one per cent. to two grammes of tannic acid to the pint of water, at a temperature of 39° to 40° C. (104° F.).

VALERIANATES IN MELANCHOLIA.—Dr. S. A. De Foe, of Washington, New Jersey, writes to the *Medical Brief* that a combination of the valerianates of zinc, iron, and quinine works like a charm in cases where fretfulness and worry threaten to develop chronic melancholia. He used Schieffelin & Co.'s soluble gelatin-coated pills, containing one grain of each of the above-named salts. Having tried this formula in many cases, he pronounces it a specific for the worry of nervous women, melancholia, and incipient insanity.

MISCELLANY.

THE INTERNATIONAL MEDICAL CONGRESS OF 1887.—A meeting of members of the medical profession interested in the International Medical Congress in 1887, to which prominent medical men from a number of cities were invited, was held at the hall of the College of Physicians, Philadelphia, December 4, 1885, Dr. D. Hayes Agnew in the chair.

It was stated that official notice had been given of the election, as members of the present Executive Committee of the Con-

gress, of Drs. J. S. Billings and J. M. Browne, of Washington, District of Columbia; Christopher Johnston, of Baltimore; George J. Englemann, of St. Louis; and J. M. Da Costa and William Pepper, of Philadelphia.

A general and strong expression of opinion was made in support of the American Medical Association and its Code of Medical Ethics, and sincere regret was expressed that hasty action on the part of the Association, and the introduction of false issues, had imperilled the success of the Congress. It was made entirely evident, however, that the acceptance of the above elections would not be regarded as affording any adequate guarantee for the future scientific conduct of the Congress, and consequently would not be followed by any co-operation on the part of the leading members of the profession now unwilling to join in that work. As an evidence of the earnest desire which is felt for the restoration of harmony upon this subject, and for the reorganization of the Congress on a basis which would command general support, and thus insure success, the view was unanimously expressed that if the present Executive Committee should unite with them the Original Enlarged General Committee, and recommence the organization *de novo*, this course would insure the desired result.

KANSAS CITY MEDICAL INDEX.—A change has been made in the editorial staff of this progressive Western journal. Drs. Brown, Drake, and Adams have retired, and Dr. John W. Elston, the founder of the periodical, has associated with him editorially Dr. Emory S. Lamphear, who has already had considerable experience in medical journalism. We wish the *Index* success in its efforts to elevate and unify the profession and to establish medical societies and local sanitary boards in its neighborhood. We are glad to see that it advocates the International Medical Congress at Washington in 1887.

COLDEN'S BEEF.—Dr. Wm. Alex. Greene, Macon, Georgia, writes that he has tested the virtues and efficiency of "Colden's Liquid Beef Tonic" in his private practice in cases of general debility, weakness, depression, dyspepsia, loss of appetite, and nervous affections, when medicine had proved more than useless. He found it the best remedy he had ever used in chronic alcoholism, when the stomach is always irritable, and food is required to nourish and invigorate the drooping strength and nervous depression.

MÜTTER LECTURES AT THE COLLEGE OF PHYSICIANS.—Dr. Henry F. Formad will deliver a series of lectures before the College of Physicians, commencing December 8, and ending January 15, on successive Tuesdays and Fridays (except during Christmas week), at 8 P.M., on the Mütter foundation. Sub-

jects—"Morbid States as influenced by Embryonal Development, Anomalous Structural Peculiarities, Injuries, and the Effects of Lower Organisms, with Special Reference to Surgical Pathology."

THE PHILADELPHIA POLYCLINIC will remove in the early spring to its new and much larger building, Broad and Lombard Streets, where it is expected to open a hospital in addition to the dispensary service used for clinical instruction. The class of practitioners this year has been unusually large. *The Polyclinic Journal*, edited by the faculty, will be increased in size after January 1.

PEPTONIZED BEEF.—It would appear that the problem of an extractive of digested beef has been solved by Prof. Preston B. Rose, formerly of the Michigan State University. The general agents of this preparation, Messrs. Chapman, Green & Co., of Chicago, will be pleased to forward samples, as per their advertisement.

THE *Illustriertes Monatsschrift der ärztlichen Polytechnik* in its November issue and succeeding numbers will publish an illustrated report of the Strassburger Erfindungs Ausstellung, which will undoubtedly be interesting and valuable. The *Monatsschrift* is published at Berne, and can be obtained from the publishers.

A RECEPTION to the members of the Philadelphia County Medical Society will be given on the evening of December 12, by the President of the Society, Dr. R. J. Levis, at his residence, Sixteenth and Walnut Streets.

BARRY'S self-registering clinical thermometers are well made, accurate, and reliable. They can be sent by mail.

DR. CHARLES WIRGMAN has been elected one of the staff of attending physicians to the Jefferson Medical College Hospital.

DR. JOHN H. PACKARD has removed his office and residence to No. 1437 Spruce Street.

NOTES AND QUERIES.

MEMORANDUM CONCERNING THE CORROSIVE-SUBLIMATE TREATMENT OF CHRONIC ECZEMA OF THE SCALP.

(WRITTEN BY BENJAMIN PARKER, A.M., M.D., WHEN OVER EIGHTY YEARS OF AGE, APRIL 4, 1842.)

Contributed by his grandson, Dr. W. Thornton Parker, Newport, Rhode Island.

"The scald head is cured in a few days by the following method: After cutting the hair as close as possible, wash the head every morning with soap-suds, then sprinkle on white precipitate with a bunch of cotton, like hair-powder, until it is all white. Go through this process every morning until the head is well, which will be in a fortnight. If the case is

inveterate, give bark and wine during the local application. *Probatum est.*

"Sometimes a weak solution of corrosive sublimate is used to great effect. In very bad cases it is found to be more effective."

INTERNATIONAL MEDICAL CONGRESS: ACTION OF THE CAMDEN COUNTY MEDICAL SOCIETY.

At the semi-annual meeting of the Camden County Medical Society, held November 10, 1885, the following resolutions were unanimously adopted:

Resolved, That this Society approves of the action of the American Medical Association in enlarging the committee of arrangements for the Ninth International Medical Congress, in 1887.

Resolved, That the rules regulating the membership and business of the Congress adopted by the committee of arrangements at the meeting in New York, September 3 and 4, and the transference of the future management of the Congress to an executive committee, composed of the President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of Sections, be considered by this Society sufficient to silence criticism and enlist the sympathies and support of the profession throughout the United States.

Resolved, That the Secretary be instructed to forward copies of these resolutions to the County Medical Societies of New Jersey.

E. B. WOOLSTON,
President.

H. GENET TAYLOR,
Secretary.

CAMDEN, NEW JERSEY, November 10, 1885.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM NOVEMBER 22, 1885, TO DECEMBER 5, 1885.

MAJOR R. S. VICKERY, SURGEON.—Relieved from the assignment as Acting Medical Director, Department of Colorado, to date from the 16th inst. S. O. 200, Department of Colorado, November 23, 1885.

CAPTAIN C. K. WINNE, ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon, Benicia Barracks, and Attending Surgeon at Benicia Arsenal, California. S. O. 109, Department of California, November 20, 1885.

CAPTAIN WALTER REED, ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for one month's extension, to take effect about December 1, 1885. S. O. 115, Department of the Platte, November 18, 1885.

CAPTAIN ARTHUR W. TAYLOR, ASSISTANT-SURGEON.—Granted leave of absence for one month, to take effect December 5, 1885. S. O. 116, Department of the Platte, November 20, 1885.

FIRST-LIEUTENANT A. R. CHAPIN, ASSISTANT-SURGEON.—Ordered for temporary duty at Fort Robinson, Nebraska. S. O. 115, Department of the Platte, November 18, 1885.

LIEUTENANT-COLONEL JAMES SIMONS, U.S.A. (retired).—Died November 11, 1885, at Baltimore, Maryland.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE U.S. NAVY FROM NOVEMBER 22, 1885, TO DECEMBER 5, 1885.

R. A. MARMION, SURGEON.—Detached from Marine Barracks, Washington, D.C., December 7, and wait orders.

A. M. MOORE, SURGEON.—Ordered to Marine Barracks, Washington, D.C., December 7, 1885.

HAMPTON AULICK, SURGEON.—Ordered to the "Alliance" as relief of Surgeon George P. Bradley.

GEORGE P. BRADLEY, SURGEON.—Ordered to Naval Hospital, Philadelphia.

JOSEPH SHAFER, ASSISTANT-SURGEON.—Detached from Naval Hospital, Philadelphia, and ordered to the "Minnesota."

J. H. GAINES, PASSED ASSISTANT-SURGEON.—Detached from Naval Hospital, Philadelphia, and ordered to the "Dolphin."